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STATE DOCUMENTS

BENEFIT FINANCING

Part Two of

Unemployment Insurance In Montana

Unemployment Compensation Commission
Helena, Montana

In Cooperation With

Bureau of Business and Economic Research
School of Business Administration
Montana State University
Missoula, Montana

December — — — 1951

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J. J. SMITH, Commissioner — M. JOE MILLER, Chairman

ALBERT F. ROOT, Commissioner

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Part One—**"THE ECONOMY OF MONTANA"** is published by Montana State University in cooperation with this Commission

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UNEMPLOYMENT COMPENSATION COMMISSION

Of Montana

Helena

November 14, 1952

Honorable John W. Bonner
Governor of Montana
State Capitol
Helena, Montana

Dear Governor:

Your commission is pleased to present this report on a study made during 1950 and 1951 on "Benefit Financing", which is Part Two of "Unemployment Insurance in Montana". The initial report, designated as Part One, on "The Economy of Montana", was produced by the State University in cooperation with the commission and is already in your hands.

Release of Part Two has been deferred to this date in order that it might include an actuarial study of statistics and economic prospects affecting future years of operation for insurance of involuntary unemployment. That portion of this study has been provided by technicians of the Bureau of Employment Security at Washington, D. C.

Comprehensive distribution of this report is being made to other state offices and departments, libraries, schools, county and city officials, research agencies, representative groups of employers and of employees in the state, and to the many individuals who have manifested a desire to receive it.

Sincerely,

M. JOE MILLER, Chairman
J. J. SMITH, Commissioner
ALBERT F. ROOT, Commissioner

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FOREWORD

A broadly inclusive study of the unemployment insurance program in Montana, as it relates to the economy, population, working force, development trends, and stabilization of employment economy, was instituted in September of 1950. The primary purpose of the survey is to render a one-package digest of the experiences during the past decade as an index to developments which may be expected in the decade of the fifties.

An important aspect of the undertaking is the light it may furnish to the people of Montana, and particularly to the state's lawmakers, with respect to possible proposals for modification or improvement of the program. In order to deal effectively with the hazards of unemployment and promote the best possible utilization of manpower, it is desirable to have available all experiences of the past as guideposts.

Unemployment compensation is a relatively young insurance program, engaged in a field whose hazards are those of economic factors in contrast to the hazards of life and death, of fire and accident, and similar more or less measurable probabilities in conventional insurance risks. Any insurance program must be actuarially sound if its solvency is to be assured. This study is the first thoroughgoing attempt to marshal the known Montana facts and figures relating to unemployment hazards as a foundation for the application of actuarial principles to the program in this state.

Companion studies have been undertaken in most of the states of the union and have reached completion in several. A staff of expert technical advisors has been built up at national headquarters of the Bureau of Employment Security to assist the states in the interpretation of facts disclosed by these studies, and in strengthening and stabilizing their insurance structures.

Designing of these rate and benefit structures is the province of state legislative authorities; in the discharge of that duty access must be had to basic information covering the field in which the rates and benefits operate. To compile and digest that information the Commission enlisted the co-operation of the State University, particularly with respect to the economic conditions and prospects in the state. The resulting section of this report, Part One, dealing with the economy of Montana, its population fluctuations, labor force, employment and unemployment, con-

stitutes an important contribution to the historical and statistical knowledge of the state.

Ready acceptance of this assignment by the University authorities, and outstanding performance of their phase of the production, is gratefully acknowledged. President Carl McFarland of the University and Dean Theodore H. Smith of the School of Business Administration responded in a spirit of full cooperation. Upon the Bureau of Business and Economic Research, however, fell the responsibility for full performance. Director Harold J. Hoflich and Mrs. Maxine Johnson, research associate, assisted principally by Guy C. Gifford, instructor in business administration, and by Mrs. Elizabeth M. Smith, formerly instructor in mathematics at the University, have contributed immeasurably to the scope and thoroughness of presentation. Contents of Part One, on "The Economy of Montana," the summary on that subject as well as the chapter on economic assumptions in this Part Two, all attest to the quality of their accomplishments.

Statistical and narrative review of the operations of unemployment insurance in Montana from its inception in 1939 was compiled and prepared by staff members of the Commission. Possible proposals for modification of the rate and benefit provisions in the law are presented from the standpoint of their fiscal effect upon the reserve fund which bulwarks insurance payments under the system.

Actuarial conclusions founded upon the material presented in Part One and Part Two were prepared by Dr. Michael T. Wermel, Chief Actuary, Bureau of Employment Security, Washington, D. C., and his associates. These constitute the prime objective of the study. The Commission is indebted to Dr. Wermel and staff for guidance and encouragement in designing and executing the research for their understanding review of its content, and for pertinent suggestions for improving the presentation.

This composite report is now presented to the people of Montana, for whom this commission is a public servant, in the hope that it may serve to blaze the pathway to a more complete understanding of, and sympathy with, the problems of benefit financing as related to the economy of the state. Out of the experience of this presentation it is hoped and expected that improved avenues of approach and of techniques may be developed, to provide in the future a continuing review and revision for the information and guidance of all persons concerned with this phase of Montana's employment economy.

I

PURPOSE OF BENEFIT FINANCING STUDY

Experience was lacking in the field of unemployment insurance when, in 1937, Montana joined other states in a program intended to "lighten the burden which so often falls with crushing force upon the unemployed worker and his family." More or less arbitrary decisions had to be made by legislators and state executives, based upon inconclusive facts before them, as to what rate of compensation to pay to unemployed workers under the system; how long a period the payments were to cover; the rate of payroll tax to be collected to provide the fund from which benefits would be drawn; what industries and classes of employers and employees should be included in the insurance system; the extent or degree of unemployment of an individual that would be compensable by the insurance; and many other problems to which only complete records of labor market transactions over a considerable period of time would furnish the solution.

These uncertainties were recognized by the pioneers in unemployment insurance, who accordingly provided for "a reserve fund against the liability in future years to pay benefits in excess of the then current contributions, which reserve shall be set up by the commission in accordance with accepted actuarial principles on the bases of statistics of employment, business activity, and other relevant factors for the longest period."

Actuarial Foundation Required by Law

In obedience to that mandate of the law, and with a period in excess of a decade from which to draw the statistics and experiences of employment, the commission inaugurated an intensive actuarial study late in 1950, compiling factual material as a guide to authorities in reaching conclusions as to adequacy or inadequacy of the coverage, benefits, duration of benefits, rate of payroll tax contributions required to guarantee continued solvency, and other adjustable factors in the state's system of unemployment insurance.

The study results in the compilations presented in this economic and statistical summary of those experiences, along with

projections through the present decade. It is intended to assist in reaching valid conclusions as to what may be expected to evolve in this field of unemployment insurance, under the existing provisions, and under such changes as may be found desirable and equitable by those in authority.

Discloses Probable Effects of Changes

In preparation of this report the intent has been, as required by law, to inform the public how its system of unemployment insurance has operated, to furnish facts and figures as an aid to interpretation of the program's needs, and to enable those concerned with adjustments and improvements to determine what effects may be expected to follow specific adjustment proposals. It is not the province of the commission to influence or initiate these adjustments, but merely to furnish the groundwork for an intelligent analysis of present status and for disclosing the probable effects of any changes which may be considered.

No Depletion in Montana

While Montana does not face the disquieting situation manifested in several other states, where unemployment reserves were depleted rapidly in 1949 and part of 1950, there were significant changes in rate of growth of the fund balance and in the total outgo of these insurance monies during that period. These were not such as to threaten the solvency of the system in themselves, but they do raise the question as to what would be the result were such an economic recession as that of 1949-50 to run the full course of a major depression.

Such a contingency would, of course, encounter the built-in checks of the present Montana system. Depletion of the fund to a point about half of its present stature automatically calls for an increase of fifty per cent in the net contribution rate. Again, recurring benefit claims in subsequent benefit years are contingent upon newer wage credits. Also, limited benefit duration slows down the drain resulting from continuing unemployment of an individual or group of individuals.

Volume of Unemployment Determines Cost

Fundamentally, the cost of unemployment insurance is affected by the volume of unemployment. If there were no unemployment the levels of benefits provided would have no effect

upon the fund, for without unemployment there would be no withdrawals. At the other extreme, if there were no employment there would be no contribution, for the contribution is a percentage of the payroll and without payroll there would be no tax collected. The focus of this study is therefore upon employment, its past and present levels and its future prospects. A sound estimate of anticipated employment and unemployment is the key to the probable future of the unemployment compensation fund.

The legislative course to be followed in fixing the payroll tax rates, the benefit rates, the duration of benefits, and defining conditions under which these collections shall be made and these benefits shall be paid, devolves upon the lawmakers of Montana. The study here presented is prepared in obedience to legislative mandates heretofore issued. Decisions of the character required of the legislative authorities quite obviously can best be made in the full light of all available facts bearing upon the program.

Future Employment Trends Pose the Problem

Since unemployment insurance costs, and the status of the fund, are dependent primarily upon the levels of employment and unemployment, the central problem in appraising the position of the fund consists of estimating future employment trends. Economic science has not yet reached the point where prediction can be made with any great degree of certainty. It is, however, possible to review past economic trends, study the fundamental causes behind them, and inquire how these causes may be expected to operate in the future.

The cost of unemployment insurance is related to seasonal fluctuations in employment volume and to long-range employment trends. A more indeterminate effect upon these costs arises from cyclical variations in business activity, for which it is possible only to assume several reasonable alternative courses of future economic behavior, within the framework of which the actual course of events will presumably fall. The assumptions presented are intended to cover the period of one business cycle, of from eight to ten years, and although the several assumptions vary in terms of timing and fluctuations, they do not result in widely different cost estimates.

II

THE UNEMPLOYMENT INSURANCE SYSTEM

In studying the operation of Montana's laws on unemployment compensation it is essential that the basic purposes of unemployment insurance be kept in view. Those purposes are: the orderly accumulation of funds based upon wages in employment, for use in the payment of benefits, as a matter of right and not in relation to need, for unemployment which is beyond the control of the individual worker. Employment in good times thus provides a bulwark against unemployment in times that are not so good.

A two-fold effect is produced: The unemployed worker is enabled to purchase, for a reasonable period, some of the basic living essentials that his previous wages had enabled him to obtain for himself and his family; and the total purchasing-power potential, upon which production plans rest, is to that extent sustained.

A First Line of Defense

Unemployment insurance is not designed to apply to all unemployment under all conditions. Rather, it is a "first line of defense" against recession. It supplies a part of the wages lost, to insured individual workers idled through no fault of their own, for a limited period of time. Continued unemployment, resulting from severe crises of long duration, requires remedies beyond the scope of unemployment insurance.

It cannot be repeated too often that unemployment insurance is a major device for compensating, partially, wage loss due to normal fluctuations in labor demand and supply. It helps to put a brake on downturns in business activity and to reduce the momentum of deflation.

Standards of Adequacy

Years of experience in the field of unemployment compensation have been too few to arrive at final standards of adequacy. In the light of that experience, however, certain illuminating observations on the subject may be offered.

The question of adequacy involves the level and the degree to which the working force is included in coverage, which in-

volves the inclusion or exclusion of such labor force segments as are not insured, such as: agricultural labor, domestic help, government employees not now protected under such a program, and self-employed workers in individual or small-unit firms or establishments. Adequacy is also measured to some extent by fiscal requirements of eligibility, degree of attachment to the labor market, seasonality of employment, and by provisions for disqualification.

The weekly benefit amount as a percentage of the normal wage earnings of the individual, the duration for which such benefits are awarded, and the method of financing the benefits, are also related to the ultimate adequacy of the system as a means for realization of its objectives.

Coverage

Accomplishment of the purposes of unemployment compensation is retarded to the degree that substantial numbers of workers, and corresponding groups of employers concerned with the risks of unemployment, are outside the protection of the system. Montana's laws are well advanced in the matter of coverage; it is one of only eighteen states covering firms with as few as one worker. Its benefits are extended, potentially, to about three-fourths of the non-farm wage-earners in the state.

Principal exclusions from the insurance program are the employees in agriculture, government, domestic service, certain religious and charitable enterprises, and those employees engaged in interstate railroad occupations who have coverage under a related but separate system.

Subject Employers

The Montana act defines the "employer" who is subject to its requirements as any employing unit giving employment to one or more individuals during any part of twenty different weeks in a calendar year, or in the preceding calendar year, or any employing unit whose total annual payroll in the current or the preceding calendar year exceeds the sum of $500.

Employing unit is defined as any individual or type of organization, including any parinership, association, trust, estate, joint-stock company, insurance company or corporation, trustee in bankruptcy, trustee or successor thereof, or the legal representative of a deceased person, which has in its employ one or more individuals performing services for it within the state.

The definition of employment sets up, among other boundaries, the exclusions which eliminate agricultural labor, domestic service, family employment, religious or charitable service, governmental service, railroad employment, and minors engaged in delivery of newspapers, from the benefit provisions of the act. Wages paid to such employees are not subject to employer payroll contribution under the law.

It is significant that Montana's law extends coverage to employers of "one or more" while 21 of the states and territories restrict their coverage to "eight or more." Two states set the figure at six workers, eight at four or more, two at three or more. All states follow about the same line of demarcation as Montana with respect to industries excluded from coverage.

Eligibility

One of the most perplexing aspects of unemployment compensation has to do with defining requirements for eligibility on the part of the worker. A basic principle is that each worker, to be eligible, must have established a long enough period in covered employment to create the presumption that he is regularly engaged in employment and is therefore attached to the labor market.

Since the system is designed to protect workers against unemployment due to lack of work, any qualifying requirements will tend to exclude from benefits persons who seek work in covered employment only intermittently or for brief seasonal periods. At the same time it should not be so restrictive as to exclude those who seek such work but through circumstances beyond their control are able to find it only intermittently.

The degree of attachment of an individual to the covered labor market is at least partially indicated by his previous work experience. Yardsticks usually applied to that work experience to determine degree of attachment to industrial employment include: earnings in a base period; time worked during that period; and a combination of earnings and the time worked.

Earnings In a Base Period

Earnings in the base period, defined in Montana as the first four of the last five completed calendar quarters, must be at least $210.00 to create eligibility. Higher wage earnings in the base period serve to increase the benefit amount, up to wages

of $600 in a single quarter, or $422.23 in one quarter and at least $177.77 in the other quarters to produce a total of $600 which supports the present maximum $20 weekly benefit amount.

Other Eligibility Requirements

Tied in with the requirements of earnings, as a basis for eligibility under Montana's law, is the stipulation that eligibility shall also depend upon the claimant's having registered for work, having made a claim for benefits, being unemployed, able to work, ready and willing to work, and seeking work. There is further provision that payment of benefits shall not commence until two full weeks of unemployment, designated as waiting weeks, shall have elapsed.

Each week of unemployment is to be reported by the claimant, after its completion. The Montana law defines a week of unemployment as a week during which he performed no services and with respect to which no wages are payable to him, with the additional clause that remuneration for odd jobs or subsidiary work amounting to $7.00 or less, or for one day's work not exceeding eight hours, whichever is greater, shall not invalidate that week as a "week of unemployment."

Montana's law requires two waiting weeks for which no compensation is payable, to be served before benefit payments begin. Originally all state laws required a waiting period, but its length has been diminished in most states. At present three states, Maryland, Nevada and North Carolina, have eliminated the waiting period altogether; in 41 states the requirement is one waiting week; in five others the requirement is one week of total unemployment or two or more of partial unemployment, while only two states, including Montana, have the two-week requirement.

An uncompensated waiting period was originally intended to give time for processing of the initial claim prior to the date when benefits were allowable. It has the further effect of discouraging filing of claims for unemployment of short duration. Some economists view the waiting period as a punitive requirement, necessitating the loss of wages by the claimant for a period before qualifying for benefits. Reduction of waiting week requirements in Montana would have the effect of advancing the delivery date of weekly benefit checks to the extent of such reduction, thus shortening the interval between loss of wages and receipt of insurance payments.

Weekly Benefit Amount in Montana

The Montana law sets up the following benefit formula:

Weekly benefit amount—Four and one-half (4½) per centum of total wages in employment for employers in the quarter of his base period wherein his earnings were highest, if a multiple of a dollar, or computed to the next highest multiple of a dollar, but not more than twenty dollars ($20.00) per week, nor less than seven dollars ($7.00) per week; provided, total of such wages earned within the base period are equal to thirty (30) times the weekly benefit amount.

This formula has the effect of combining requirements of fixed minimum earnings and a period of employment element. The $210.00 minimum is established by the requirements that the total earnings must be at least 30 times the weekly benefit amount and that $7.00 shall be the minimum benefit.

It would have the further effect, in the lower benefit amount brackets, of creating an impasse for the applicant who has earned wages in only one quarter and has no covered earnings in another quarter of the base period to supplement that minimum and meet the "30 times" requirement. But this situation is cured by a regulation providing for scaling down the weekly benefit amount of such applicant to that sum for which his total earnings will qualify when the 30 multiple is applied.

For example: High quarter earnings of $270 would support a weekly benefit amount of $13.00, since 4½ percent of $270 is $12.15 and would be raised to $13.00 under the formula. Applying the "30 times" provision, however, sets a total-earning requirement of $390. If the applicant has at least $120 earnings in any or all of the other three quarters of his base period to support his higher quarter of $270 he qualifies for $13.00 per week. Otherwise his weekly benefit amount is scaled down until the level is reached where the "30 times" product is at least equalled by his total of earnings. If he had no earnings beyond those of his highest quarter his weekly benefit amount would thus be fixed at $9.00 instead of $13.00.

Earnings of $600.00 or more in a single calendar quarter, and no earnings in the other quarters of the base year, will qualify the applicant for the maximum weekly benefit amount of $20.00, since 4½ percent of $600.00 is more than $20.00 and 30 times $20.00 is $600.00.

The following benefit scale is an interpretation of the Montana benefit formula as incorporated in the law:

(1) Highest Earnings During a Quarter of Base Period	(2) Weekly Benefit Amount	(3) Base Period Earnings Required	(4) Maximum Entitlement*
Less than $52.50	-------	-------	-------
$ 52.50 to $155.55	$ 7	$210	126
155.56 to 177.77	8	240	144
177.78 to 200.00	9	270	162
200.01 to 222.22	10	300	180
222.23 to 244.44	11	330	198
244.45 to 266.66	12	360	216
266.67 to 288.88	13	390	234
288.89 to 311.11	14	420	252
311.12 to 333.33	15	450	270
333.34 to 355.55	16	480	288
355.56 to 377.77	17	510	306
377.78 to 400.00	18	540	324
400.01 to 422.22	19	570	342
422.23 and over	20	600	360

*Weekly benefit amount multiplied by 18, maximum number of checks issuable.

The Benefit Amount in General

While there is no general agreement as to what proportion of a worker's normal wage in employment should be provided him in periods of involuntary unemployment, it is generally agreed that the amount should be sufficient to enable him to purchase for himself and his family the basic living essentials, such as food, rent, fuel, and the necessary items for household operation. The President has recommended to Congress that benefits for single persons should approximate at least 50 percent of normal earnings, with additional allowances for dependents up to a maximum of 70 percent of wages.

On the other hand it is generally conceded that the payment should not be so high in relation to previous wages as to weaken the incentive to work. Montana's schedule of benefits is rather on the conservative side, ranking in the lower one-third of the states in amount but equalized in part by comparatively low requirements of eligibility.

Duration of Benefits

By tacit agreement the duration of benefits should be sufficient to bridge, for most workers at least, the ordinary and

occasional interruptions to work opportunity. Such duration should be designed to avert necessity for wholesale migration in search of work opportunity for relatively short periods of time and to make unnecessary a resort to other programs, such as public welfare or other community resources, to care for unemployed workers attached to the industrial labor market.

In some states the maximum duration of benefits is 26 weeks, ranging downward to Arizona's maximum of 12 weeks. Four states permit a maximum of 16 weeks, Montana and one other state have a maximum of 18. Other maxima include 16 states with a top of 20 weeks, two with 22 weeks, two with 23 weeks, four with 24, two with 25 and 18 with 26 weeks as the greatest duration.

A measure of duration of unemployment of qualified claimants is provided in the percentage of claims which are pursued to the maximum number of weeks. In Montana this has ranged since the war from 18% to 34%. From one-fifth to one-third of the claimants making application for benefits, therefore, have qualified for the maximum duration of benefits during recent years. Prior to the war the proportion was slightly higher, as many as two-fifths of the claims reaching exhaustion within their benefit year.

In the final analysis the question of duration is answered by legislative action. Apparently that legislative discretion has been exercised in other states, generally, in favor of a longer period of eligibility for benefits than has been deemed adequate in Montana.

Financing Benefits

Benefit funds in the Montana system are derived from contributions levied upon payrolls of employers subject to the terms of the act and from interest on the reserve fund. At the present level the interest item exceeds $700,000 a year, or is equal to approximately 15 percent of annual contributions from employers.

Maximum rate of these contributions in Montana is 2.7 percent of the payroll on wages of the individual up to $3,000 in the calendar year. Under experience rating provisions of the law the sliding scale of contribution rates must be so applied as to produce an average rate of 1.8 percent. This automatically changes to a uniform rate of 2.7 percent under certain conditions. Eleven states have provisions which allow their rates to rise above that 2.7 percent standard.

Employer Experience Fixes Tax Rates

All states are using some form of experience rating as the basis for a graduated scale of payroll contribution rates. This scale is designed to encourage stabilization of employment by offering reduced contribution rates to employers whose operations result in least unemployment. Various devices for measuring the employment experience of the employing unit are utilized.

In general the effect is to reward by lower contribution rates the employer who produces a minimum of unemployment. In all states a tax reduction or tax credit is provided for employers, subject to the law, whose employment experience qualifies them for such rating. The experience rating phase of the contribution structure in unemployment insurance laws has been developed since the system was founded some 15 years ago.

Montana Experience Rating Provisions

Under the experience rating provisions of the Montana law, adopted in 1947, a horizontal reduction in the aggregate was provided by substituting five levels of rates for the one uniform 2.7 percent of taxable payroll previously in effect. The maximum remains at 2.7 percent, but lower rates of 2.5 percent, 2.0 percent, 1.5 percent, and 1.0 percent, are provided, to be so applied that income will be approximately at an average of 1.8 percent.

Three factors are considered in fixing the tax rate for a given employer: (1) average annual percentage declines in taxable payrolls for the last three years; (2) number of years the employer has paid contributions; and (3) chargeback of benefit payments made to former employees. The computation date is June 30th of the preceding calendar year.

For purpose of fixing these rates for a given year, 1951 for example, the taxable payrolls of the employing units for three latest fiscal years—1948, 1949, and 1950—become the basis.

Payroll decline is ascertained by comparing the total taxable payrolls of each of the three years.

Age of the employing unit is reckoned in the number of years it has been a contributor to the fund. There must have been at least five such years, three of which must have been the fiscal years of 1948, 1949, and 1950.

Contributions made by the employing unit, and benefit payments to former employees of that unit under conditions defined

in the law as chargeable to that employer account, all during the three fiscal years mentioned, are used to fix the relationship between those items.

These three factors are then rated separately on a percentage scale for each employer unit's experience. Ten is the highest attainable score in each section, and zero is the lowest. Highest total score in thereby fixed at 30, and all employers thus qualified are lumped in the top group, followed by employers rating 29, 28, 27, and so forth.

Employing units whose age factors fail to satisfy the requirements of the law for rating purposes are automatically placed in the fixed rate class of 2.7 percent. Those firms whose chargeback of benefits to former employees exceeds the amount of contributions in the three rate years are required by the law to be assessed in the 2.7 percent class.

The 2.7 percent taxpaying class is therefore fixed by law. The group attaining highest possible rating, scoring 30 points, earns the lowest tax rate for contributions to the fund. The employing units falling between these two extremes are then so divided, by mathematical determination of cut-off, that the total potential tax yield from the complete array will approximate 1.8 percent of the total taxable wages as shown to have been paid during the taxable payroll year.

The law provides a safety-check keyed to the reserve fund. At any time the fund falls below $18,000,000 the contribution rate of all subject employers shall return to a uniform rate of 2.7 percent and remain at that level until the reserve fund exceeds $22,000,000 when experience rating shall be resumed. Solvency of the unemployment compensation fund is not only desirable, it is imperative, if the unemployment insurance system is to be maintained apart from welfare, a distinction that is generally regarded as one of the great advances in social policy.

Theory of Experience Rating

There is general agreement among students of the problem of financing unemployment insurance that payroll taxes should be correlated with rises and falls in the level of business activity. When prices, production, and employment are moving upward, the employing concerns can best afford taxation, and the consequent withdrawal of purchasing power from the economy is not likely to have deleterious effects.

On the other hand, when prices are falling, production is decreasing, and unemployment is rising, additional taxes may aggravate the seriousness of the recession by making it unprofitable for some concerns to continue in operation and by reducing the potential income stream. An ideal financing program would be geared to collect larger sums by taxation during periods of prosperity and to reduce the rate of collection when unfavorable industrial conditions prevail.

III

BENEFIT PAYMENT EXPERIENCES 1939 to 1950

Payment of unemployment insurance benefits began in Montana in July, 1939, while the economy of the state was still unsteady because of the then ten-year-old depression. There were still some 15,000 to 20,000 erstwhile workers enrolled on made-work, and lists of unemployed showed from 5,000 to 20,000 other jobseekers.

Consequently the response to the new insurance program was prompt and relatively heavy. Job orders were scarce, payroll lists were full, and benefit payments proceeded to attain a level which, in the light of seasonal comparison with the volume of later years, was substantially above normal.

Seasonal interruption of outside work, and curtailment of indoor crews, in the late fall and winter of that first claims paying year swelled the claims load to unexpected proportions. Some lightening of the burden was noted in the spring, but it was slow in developing and by June had failed to push down the claim volume to the level of July in the preceding year.

The first fiscal year of benefit payments ended with a slight decrease in the reserve fund as contributions from employers fell just short of matching withdrawals by claimants. The second year of insurance payments followed the pattern of the first in most respects. Jobs began to open up slightly, and the nation's defense program began to absorb surplus labor elsewhere, but the movement did not reach Montana promptly, in part because practically none of the defense work was located in this state and labor was loath to migrate in search of jobs that were still uncertain.

Second Year Shows Slight Gain

The second fiscal year of benefit payments showed a gain in the reserve fund which just about compensated for the deficit of the year before. Thus, the first two fiscal years of benefit payments found the income of the unemployment compensation trust fund holding its own against the volume of benefit payment withdrawals, holding its own but not gaining appreciably.

War Period Interrupted Payments

Beginning with January of 1942, qualified idle workers of Montana were steadily absorbed into defense industry or as replacements in home industries. Establishment of training facilities and development of long-range clearance of workers from this area of surplus to areas where demand was unfilled, all a part of the employment service program, was instrumental in siphoning off the surplus and restoring balance of supply and demand to the Montana labor market.

Throughout that third year of benefit payment this process continued. The United States officially entered the war in December, 1941, and by the following June the employment picture had been quite completely transformed. The pressure upon the trust fund was reduced, for jobs were steadily becoming available. A strongly favorable balance between income and outgo of the fund naturally followed.

During the four following war years there was never a surplus of labor of any consequence. Montana industry utilized and conserved its labor supply, yielding thousands of workers to the armed forces and to war production work in other states and areas, and at the same time maintaining a nearly normal industrial employment at home. New workers, youths, housewives, older workers who had withdrawn from the labor market, and handicapped persons formerly rejected at the hiring gate, found ready employment during that period.

With employment prevalent, jobs available, and employers virtually begging for workers, the unemployment insurance claims dropped to a mere trickle; aggregate benefit payments averaged only a fraction of what they had been in the first years. Effect upon the trust fund was electrical. Withdrawals were extremely low. Total subject wages continued to advance through the period and contributions mounted accordingly. Reserves represented in the trust fund responded with leaping growth year by year, accomplishing a $12,400,000 gain up to December 31, 1945, without counting the increasing interest item.

Burden Shared by Readjustment Allowances

Ending of hostilities in 1945 ushered in a new period of experience in operation of the Montana laws on unemployment compensation. Enactment of a federal measure for payment of readjustment allowances to returning servicemen provided a form

of unemployment insurance for those qualified which served to divert unemployment claims of such persons from the state system to the federal allowance program.

As a result the volume of benefit payments from the Montana fund during the succeeding four years was appreciably reduced from figures it would have reached had there been no readjustment allowance. During 1949, the last of those four years, the allowance program declined because of legal provisions, and the responsibility for unemployment of veterans began to shift to the state trust fund. During its effectual life the readjustment allowance program paid to Montana residents qualified for such payments nearly $16,000,000.

Conservative estimates based upon study of the peacetime drain upon the Montana fund indicate that $8,000,000, at least, of the readjustment allowance claims would have lodged aginst the Montana program. But in the favorable climate induced by the readjustment allowance payments the Montana fund continued to grow, waxing about $10,000,000 fatter during the four-year period, without counting increases due to interest payments. At the end of 1949 there were $32,000,000 on reserve.

Claim Volume Increased in 1950

The year 1950 brought a greatly increased volume of claims and benefit payments, surpassing any previous period in the history of unemployment insurance in the state. Payments exceeded $4,250,000 and came within $200,000 of equalling the contribution income for the year. The claims of former service men now lodged against the state fund, since their own program had virtually expired. Added to that substantial increase in withdrawals were those accompanying a minor recession which swept into the state from eastern and western industrial centers late in 1949 and continued into the early summer of 1950 to create an unusual volume of unemployment.

Effect of the recession upon the Montana fund was minor, nothing at all like the effect reported from Rhode Island, Massachusetts and New York, in the east and from Washington, Oregon and California in the west. Nevertheless, the effect was sufficient to jolt Montana economists into a realization of potential threats to the solvency, or at least the continued growth, of the Montana fund.

Table 1

MONTANA'S UNEMPLOYMENT INSURANCE TRUST FUND

1936-1950

Year	Contributions	Interest	Penalty & Interest	Pen. & Int. Transferred to Admin. Fund	Outstanding Benefit Checks	Benefits Paid	Fund Balance
1936	$ 539,593.54	$ ----	$ ----	$ ----	$ ----	$ ----	$ 539,593.54
1937	1,829,055.37	270.60	----	----	----	----	2,368,919.51
1938	2,240,527.34	54,476.17	495.48	----	----	----	4,664,418.50
1939	2,466,266.33	130,788.92	1,205.88	----	----	764,880.00	6,497,799.63
1940	2,789,150.23	127,473.87	423.45	----	----	3,147,254.07	6,267,593.11
1941	2,971,309.87	125,465.20	542.66	----	----	2,550,570.53	6,814,340.31
1942	3,385,475.84	149,040.45	2,192.95	----	1,144.00	1,224,808.50	9,127,385.05
1943	3,508,665.17	193,972.73	1,871.72	----	780.00	108,497.00	12,724,177.67
1944	3,503,945.30	241,743.97	396.40	----	—11.00	96,833.00	16,373,419.34
1945	3,546,379.05	314,804.12	251.78	----	38.00	132,504.00	20,102,388.29
1946	4,358,876.32	378,171.34	160.48	287.93	----	1,089,367.03	23,749,941.47
1947	3,437,164.78	452,706.68	632.64	26.60	133.00	927,009.42	26,713,303.12
1948	3,908,689.27	542,303.85	4,384.85	2,004.76	125.00	1,270,136.78	29,896,664.55
1949	4,193,720.36	625,560.60	3,996.26	3,990.74	—10.00	2,668,451.58	32,047,489.45
1950	4,454,671.07	652,859.10	7,936.23	7,798.50	----	4,280,255.69	32,874,901.66
Totals	$47,133,489.84	$ 3,989,637.60	$24,480.78	$ 14,347.96	$ 2,199.00	$18,260,557.60	$32,874,901.66

Re-Armament Curtails the Benefit Demand

The national re-armament movement which followed outbreak of the conflict in Korea, and the world-wide menace from aggressors, signalled a new pressure upon the labor market and undoubtedly was a factor in halting the economic developments which had produced the upsurge in claim volume. At any rate the reserve fund is accumulating again, though at a less pronounced pace than was noted from 1942 to 1949, inclusive.

Fund Growth Portrayed in Statistical Record

The history of the unemployment compensation trust fund in Montana is quite aptly portrayed in the accompanying Table 1. Amounts received from contributions and from interest, sums paid out in benefits, and annual balance for the years 1936 to 1950 inclusive, furnish a record attesting the steady growth of subject wage totals, the widely fluctuating demands made upon the fund, and the almost uninterrupted accumulation of the reserve balance.

Annual payroll tax payments over the fifteen years averaged around $3,140,000 while benefit payments in the twelve and a half years since insurance was payable averaged $1,460,000 a year. Meanwhile the resulting reserve was augmented by approximately $4,000,000 in interest received and credited to the fund.

Two major factors incidental to the period had much to do with the growth of the reserve, as already pointed out. The four years of war, roughly 1942 through 1945, added $12,000,000 through surplus of contributions over benefit payments. The four post-war years, 1946 through 1949, boosted the reserve by another $10,000,000; all without reference to the sums received in the form of interest on the reserve fund.

Twelve Years in Retrospect

Benefits were extremely low in volume during wartime for the simple reason that unemployment was virtually non-existent —even the traditional seasonal unemployment in this latitude was assigned to necessary work and scarcely touched the insurance reserve. After hostilities ceased benefits paid from the fund were curtailed as a result of federal payment of readjustment allowances to unemployed veterans following their return to civilian life.

Future adjustments in the rate of compensation to qualified, unemployed applicants, and in the rate of payroll tax imposed, should be calculated in the light of these facts. In the absence of the two factors described above the reserve fund balance would present an entirely different picture. Had there been no war in the forties the employment situation, and the unemployment volume, would have been vastly different. Without such a war period, of course, there would have been no readjustment allowances to bolster the fund against seasonal and frictional unemployment.

The state's economic history during the benefit-paying period discloses no prolonged intervals of unusual and severe unemployment of the sort encountered from 1929 to 1936. Yet in the years 1940 and 1941 there developed a sufficient claim volume to absorb virtually all the income from contributions during those same years. Again in 1950 the claim volume nearly equalled the contributions. Only the heavy interest payments provided a substantially favorable balance.

Accordingly it appears that the years 1940, 1941 and 1950 were more nearly normal with respect to unemployment insurance experience in Montana than any other years in the period of its operation. Under rates prevailing during those years the contributions exceeded the benefit payments by less than $100,000 a year. Any decrease in the payroll contribution rate or increase in the weekly benefit amount would therefore, in equally normal times, tend to dip into the reserve balance. Recurrence of a period of unemployment comparable to that which began in 1929 would bring about rapid depletion of that reserve.

Digest of Montana Benefit Financing

Annual data on contributions, covered employment, benefit claims, and the percentage relation of certain of these items, one to another, are presented in Table 2. The history and experiences of the unemployment insurance program in this state are thus shown in a statistical condensation to permit ready comparison, item by item and year by year. Figures on most of the items are shown for the years from 1938 to and including 1950; in a few instances the data are not available.

Slight variations, especially in the section on finances, from similar items in Table 1, are due to a difference in cut-off date in the two compilations. Contributions are reported in Table 1 with respect to the period in which they accrued, while in Table 2

they appear in the time they were paid, thus causing a shift of approximately one calendar quarter of the year. This affects also the fund balance figures. It is purely a bookkeeping transaction.

Finances

The trust fund balance compares, subject to modifications noted above, with the figures already discussed for the different years. The average contribution rate in Montana was uniform at 2.7 percent up to 1947, when experience rating was made effective. The contribution rate is the tax to which payrolls of employers coming under the terms of the law are subject.

Percentage Relations of Insurance Data

The ratios of benefits to taxable wages, trust fund to taxable wages, weekly benefit to weekly wage, number receiving benefits to number having wage credits, claims exhaustions to number receiving first benefit check, and similar relationships, furnish guides for determining extent and impact of unemployment with relation to the employment economy upon which the program rests.

Benefits paid to taxable wages, expressed as a percentage, is looked upon as one of several measures reflecting changes from year to year in the extent of unemployment among earners eligible for the insurance. These ratios follow the pattern of unemployment experience discussed earlier in the chapter. The first two years bore the heaviest percentage recorded, followed by the war years with their low drain upon the benefit fund. Then came the four post-war years during which part of the burden of unemployment was borne by federal payments aggregating $16,000,000 under the servicemen's readjustment allowance program. In 1949 and 1950 the allowance program virtually expired and at the same time the inventory recession period developed, thus a heavier drain upon unemployment compensation funds is reflected.

Another such guide is furnished by the percentage relation of number of first payments to estimated number of wage earners who have earned wage credits in the year. First payments are used in this ratio, rather than number of claimants filing, to exclude the substantial number who start claims but are reemployed or drop out of the claim picture without having reached the stage of receiving a benefit check.

Table 2—DIGEST OF MONTANA BENEFIT FINANCING—1938-1950

	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	[1] 1950
I. Finances													
1. Trust Fund Balance (000's)	$4,772	$6,898	$5,435	$5,979	$8,216	$11,896	$15,584	$19,326	$22,698	$25,923	$29,055	$31,257	$32,032
2. Ave. Contribution Rate [2] (%)	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	1.75	1.75	1.77	1.80
3. Contribution Collections (000's)	$2,851	$2,746	$2,725	$2,967	$3,303	$3,583	$3,526	$3,541	$4,068	$3,699	$3,837	$4,232	$4,398
4. Trust Fund Interest (000's)	$74	$145	$145	$128	$157	$205	$260	$333	$393	$477	$566	$640	$656
5. Benefit Payments (000's)	[3]	[3] $765	$3,147	$2,551	$1,224	$108	$97	$132	$1,089	$938	$1,270	$2,669	$4,280
II. Benefits, Wages, Claims (Relations)													
1. Benefits to Taxable Wages (%)	[3]	[3]	3.1	2.4	1.0	0.1	0.1	0.1	0.7	0.5	0.6	1.1	1.7
2. Trust Fund to Taxable Wgs (%)	5.9	7.6	5.4	5.7	6.6	9.2	12.1	14.7	14.2	13.5	13.1	13.4	12.9
3. Average Weekly Benefit to:													
(a) Ave. Wkly Wge (Gross) (%)	[3]	44.0	41.4	40.1	35.3	33.0	33.4	34.6	33.3	31.7	32.3	33.0	32.4
(b) Same (Taxable) (%)	[3]	44.0	41.4	42.0	36.8	35.1	35.5	37.1	36.1	35.2	36.8	38.0	38.1
4. First Payments to:													
(a) All Covered Workers (%)	[3]	[4]	17.0	14.3	6.9	1.0	0.7	0.8	4.8	4.1	4.2	8.6	10.4
(b) New Claims Filed (%)	[3]	[4]	[4]	[4]	[4]	64.5	52.2	25.0	44.1	59.7	67.5	67.7	83.8
5. Initial Claims per 4 Wks to Workers with Wage Credit (%)	[3]	[1]	3.3	2.7	1.3	0.2	0.2	0.7	1.9	1.2	1.2	2.3	2.4
6. Claim Exhaustions to First Payments [5] (%)	[3]	[4]	55.3	44.0	29.0	18.2	28.7	35.6	38.4	34.9	33.4	35.7	32.1
III. Employment and Claims													
1. Covered Employment:													
(a) Average Monthly (number)	62,709	68,300	73,192	77,192	78,464	74,108	72,000	71,714	82,996	92,050	98,103	98,925	101,182
(b) Workers on Payroll (number)	102,000	116,000	132,000	130,000	142,000	125,000	123,000	175,000	157,000	158,000	171,000	171,000	181,000
(c) Wages (Gross) (000's)	$81,014	$90,317	$101,074	$110,061	$130,165	$136,667	$138,440	$140,582	$173,065	$214,800	$253,244	$270,240	$291,766
(d) Wages (Taxable) (000's)	$81,014	$90,317	$101,074	$105,175	$124,744	$128,802	$130,134	$131,104	$159,456	$193,561	$221,937	$234,099	$247,986
(e) Avg. Wkly Wage (Gross) (am't)	$24.84	$25.43	$26.32	$27.42	$31.90	$35.47	$36.98	$37.70	$40.10	$44.88	$49.64	$52.53	$55.45
(f) Same (Taxable) (amount)	$24.84	$25.48	$26.32	$26.20	$30.57	$33.42	$34.76	$35.16	$36.95	$40.44	$43.51	$45.51	$47.13
2. Claims Data:													
(a) New Claims Initiated (number)	[3]	[4]	[4]	[4]	[4]	1,881	1,611	5,933	17,073	10,843	11,306	21,741	22,421
(b) First Payments Made (number)	[3]	[4]	22,468	18,591	9,784	1,214	841	1,483	7,532	6,468	7,635	14,725	18,788
(c) Ave. Weekly Benefit (amount)	[3]	$11.20	$10.89	$11.00	$11.25	$11.72	$12.34	$13.05	$13.35	$14.24	$16.01	$17.31	$17.97
(d) Ave. Wks Comp'sated (number)	[3]	[4]	12.9	12.5	11.1	7.7	9.4	6.9	10.8	10.2	10.5	10.5	12.7
(e) Ave. Wks Entitlement (number)	[3]	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	17.2	18.0
(f) Claims Exhausted (number)	[3]	[3] 1,052	12,251	9,179	3,563	239	233	232	2,847	2,206	2,565	4,269	6,649

[1] Preliminary, subject to revision
[2] Experience rating effective 1-1-47
[3] Benefits first payable July 1939
[4] Not Available
[5] Claims Exhaustions in calendar year as per cent of first payments during twelve months ending Sept. 30 of that year.

A third guide of the kind is provided by the relationship between the number of initial claims filed in a month to the number of workers in covered employment during that month. Each of these three indexes moves in concert with degree of unemployment as it is experienced. Their validity would, of course, diminish in the face of a period of prolonged and widespread unemployment, due to the time factor in the benefit system.

Relation of the trust fund available for payment of benefits to the total of taxable wages paid during the year reveals the degree to which the fund is competent to substitute for wages. This percentage remained fairly constant from 1938 until the end of 1942, when it began to grow under the combined effects of higher wage totals and smaller withdrawals in the form of benefits. The percentage figure more than doubled, then leveled off and has pursued a slightly diminishing trend since. This shrinkage results from the mounting annual wage total, which has been growing more rapidly than the reserve fund.

When benefits were first paid in Montana the average weekly benefit was 44 percent of the average of weekly wages paid. The percentage has grown smaller through the intervening years, as average wages mounted faster than average benefits, until in 1950 it represents only 32 percent of the gross weekly wage. This affords one measure of the sufficiency of the schedule of weekly benefit payments as set up in the law to meet bare living necessities of the worker who becomes unemployed. It gives weight to the conclusion that benefit levels have not kept pace with a rising cost of living.

The number of individuals who receive a first benefit payment, related to the number who establish eligibility by filing a new claim, serves to indicate the substantial proportion of claimants who secure re-employment before reaching the first payment stage. Data on this relationship are not obtainable for the earlier years of the program, but are reflected for the years from 1943 forward. The proportion of claimants dropping out before receiving a benefit payment ranged from one-sixth in 1950 to three-fourths in 1945. The 1945 figure was affected by the unsettled and changing payroll lists at the beginning of the readjustment period.

The ratio of claim exhaustions to the number of claimants who received a first payment in their benefit series measures the extent to which insured unemployment is prolonged enough to consume the full entitlement of the individual claimant.

During early years of benefit paying, when the maximum entitlement was 16 weekly benefit checks, the proportion exhausting their claims potential was high. It dropped to low levels during the flush employment opportunity of wartime, then built up again during readjustment years. In 1949 the maximum entitlement was changed to 18 weeks by the lawmakers, and in 1950 the percentage of exhaustions decreased slightly.

Employment and Claims

Figures on employment and claims, from which the percentage relations are determined, are presented on an annual basis. These include average monthly employment as reported by subject employers, total number of workers compensated, gross wages and taxable wages paid, and the average weekly wage, both gross and taxable. It also includes number of new claims initiated, first payments made, average weekly benefit, average number of weeks compensated, the weeks of entitlement, and the number of claims upon which maximum entitlement was drawn. The total number of workers on payroll is an approximate figure for early years of the program, refined to a more nearly accurate count of individual wage earners for the more recent years.

The average monthly covered employment is the average of the number reported on payrolls each month during the week including the fifteenth of the month, while the number of workers on the payroll reflects the aggregate number of individual workers earning wages in subject employment during a whole year. Substantial increases in both categories for the period are reflected, with the war years showing decreases resulting from out-migration to war plants and armed services, and the postwar years mounting to new high levels.

Total wages paid, both gross and taxable, mounted year by year. Increases in wage rates were great enough to overcome the slight decrease in numbers during war years and since that time wage rates have vied with numbers in increasing the total. Average weekly wage rates support these developments.

From a modest $81,000,000 in 1938 the total wages paid have mounted to a total of $291,000,000 in 1950. Prior to 1941 the gross wages and taxable wages were identical. Exclusion of an individual's earnings with an employer in excess of $3,000 a year became effective in 1941 and freed $5,000,000 of wages from the

payroll tax. In 1950 the difference between gross and taxable wages was $44,000,000.

Number of new claims initiated, not obtainable prior to 1943, was very low during the war years, moderate during the post-war period, and mounted to substantial level in 1949 and 1950. First payments follow about the same pattern, with statistics for the years 1940 and 1941 surpassing even the relatively high levels of 1949 and 1950.

The average weekly benefit amount was relatively low during the early years, prior to the wage raises which enabled more claimants to qualify in the higher brackets, and was influenced by the law's change in maximum benefit amount from $16 to $18 in 1947 and again to $20 in 1949.

Average number of weeks compensated reflects the prevailing tendency of claimants to obtain re-employment before exhausting their entitlement. Early years were relatively high in number of weeks compensated, probably a carryover from the broken employment experience of the depression's waning years; the war years were decidedly low; and post-war year figures are moderate. Increase in entitlement from 16 to 18 weeks by the law in 1949 was followed by a corresponding increase in average duration in 1950.

In the matter of claim exhaustion the figures reveal a numerical plurality in 1940 and 1941 which was only approached but not equalled in the inventory recession period of 1949 and 1950.

IV

GROWTH AND CHANGES IN MONTANA LAW

Changes in the laws governing unemployment compensation in Montana have occurred successively at each of the legislative sessions held since original adoption in 1937. The trend of these changes may be said to have been in the direction of slightly higher monetary levels of weekly benefit amounts and of greater duration with respect to unemployed persons qualifying for such benefits, and toward substantially reduced rates of payroll contributions by employers. Only slight modifications in coverage have occurred—notably the transfer of railroad classifications to the system set up for that industry in 1939, the expansion to include national banks in 1941, and closer definition of the minimum requirements for coverage of an employer.

Some of the changes made in the law have had direct monetary effect upon the fund. Others have had a less direct, or even a remote effect in a monetary sense, while still others have been in the nature of providing definitions of a more concise or inclusive form and may be said to have affected the monetary situation not at all. The principal changes made are noted in the following paragraphs in chronological order.

1939

The Montana statutes governing unemployment compensation were exhaustively amended in 1939. These amendments came just prior to the time Montana began paying benefits to qualified claimants. The sections thus superseded therefore ceased to be operative before they became applicable to the benefit paying program.

The amendments:

Omit railroad employees from coverage by the Montana law;

Revise benefit formula by simplification;

Provide uniform benefit duration of 16 weeks, maximum;

Require commission to maintain record of wages earned;

Allow for filing of claims by mail;

Reduce the waiting period to two weeks, (from three);

Limit waiting period requirement to four waiting weeks in a benefit year;

Require wage earnings in full year of base period equal to 30 times benefit amount, (instead of 16 times benefit amount in three of last four completed quarters);

Correct omissions in original version;

Streamline certain wordy sections;

Defer requirement for merit rating study and report to January 1, 1945;

Establish coverage at 20 weeks employment **and** $500.00 in wages;

Transfer railroad wage contributions to the railroad unemployment insurance account.

Definitions:

Base period to mean the first four of last five completed quarters, (from first eight of last nine);

Benefit year to mean the 52 week period beginning with filing of valid initial claim, (from 52 weeks following beginning of first week of compensable eligibility);

Employer as unit giving employment during 20 different weeks **and** paying $500.00 or more in wages in current or preceding calendar year;

Permit odd-job or subsidiary wages up to $5.00 in week without disqualifying it as a week of unemployment.

1941

In 1941, the lawmakers enacted changes in the following particulars:

Substitute "Paid to" for "Earned by" throughout the measure, (this allocates wages earned by a worker to the quarter in which they were paid, rather than to the quarter in which the work was performed);

Clarify waiting period requirements;

Remove off-set provisions with respect to—wages in lieu of notice or separation by termination; compensation for temporary disability under workmen's compensation; old age benefits under social security;

Include compensation for **total** disability under workmen's compensation as disqualifying the week for employment compensation;

Add disqualification from benefits—if claimant receives benefits under railroad unemployment insurance or under any state act; if claimant left work to attend school; women leaving work to be married;

Exclude wages in excess of $3,000.00 to an employee by an employer during a calendar year, from that employer's contribution liability;

Require submission of experience rating study by January 1, 1943;

Classify as a subject employer a unit giving employment in 20 different weeks **or** paying $500 or more in wages in current or preceding calendar year;

Substitute "The Unemployment Compensation Commission" for the "Montana State Employment Service," as liaison agency with United States government and for agreements with subdivisions;

Spell out supervisory authority of social security board with respect to unemployment compensation fund, establish guaranty provision;

Outlaw suits for collection of contributions after five years;

Establish "lien for payment" provisions;

Freeze wage credits of workers inducted into military service;

Eliminate college club, fraternity or sorority, or wild life and angler clubs from liability to contribution requirements;

Include national banks as liable employers;

Define the $3,000.00 wage limit;

Set January 1, 1941, as the date for changing record-keeping of commission concerning contributions **from** wages payable **to** wages paid.

1943

Again in 1943 the legislature adopted amendments which:

Add "and is seeking work" to the definition of eligibility for benefits;

Provide for carry-over of waiting week credit served within 13 weeks of end of claimant's benefit year on new claim filed during continuing period of unemployment;

Extend jurisdiction of commission over claims until taken over by a court under competent proceedings;

Allow commission to purchase supplies, equipment, and real property;

Broaden scope of commission in field of unemployment allowances, assistance, or any program designed to prevent or relieve unemployment, permitting commission to study possible new state-administered social security program and to co-operate with agencies of other states in opposing further federalization of such programs, or any part of the social security program;

Strengthen collection powers of commission by assessing a minimum penalty of $5.00 on delinquent contribution reports, or an alternate five percent, whichever is greater, and by shaving the one percent a month interest charge to one-half of one percent a month, (a compromise clause permits abatement of the penalty and interest when not caused by wilful intent of the employer involved);

Provide for a jeopardy assessment upon failure of employer to furnish wage reports and contributions;

Define "employment" to exclude services of newsboys as a factor in contributions or in benefits;

Include "Dominion of Canada" in the definition of "state" along with all states, territories and districts;

Exclude from definition of "wages": payments made by an employer to an employee in the nature of "retirement," "sickness or accident disability," "medical and hospitalization expenses," or "death;" all services for society, lodge, order, service club or association having annual payroll below $500.00.

1945

The legislature of 1945 adopted amendments which:

Provide that a worker who filed a valid claim for benefits and thereafter became ill or injured shall not lose eligibility unless and until a suitable job is offered him;

Eliminate the requirement of additional waiting weeks after a subsequent period of employment and fix the waiting week requirement at two weeks during a benefit year, to be served at its beginning;

Provide for reciprocal arrangements with other states to combine wage credits earned in different states and

pro-rate the amount of resultant benefits among those states;

Increase amount of odd job or subsidiary wages (from $5.00) to $7.00 in a week, or for one day's work not exceeding eight hours, whichever is greater, allowed a claimant without regarding it as excess wages and disqualification for benefits.

1947

Changes by the legislative session of 1947:

Formula for determining benefit amount—increased the percentage of highest earnings in a quarter from 4 to 4½ percent;

Maximum weekly benefit increased (from $15.00) to $18.00 for a qualified week of unemployment;

Minimum weekly benefit increased (from $5.00) to $7.00;

Contributions—adopted a system of experience rating—

Old rate: uniform 2.7 percent;

New rate: graduated at 1.0%, 1.5%, 2.0%, 2.5% and 2.7%. To be so applied that total tax collected approximates 1.8 percent of taxable payroll.

Factors of classification:

1. Average annual percentage declines in taxable payrolls in last three preceding years;
2. Number of years the employer has paid contributions;
3. Benefit chargebacks to the individual employer account upon the last employer basis.

Fixed by law: (1) Employers, not having five calendar years throughout which the employer has paid contributions to the fund at the 2.7 percent rate, are required under the law to be assessed at the 2.7 percent rate; (2) No employer's rate shall be lower than 2.7 percent whose average benefit payments charged as most recent employer have, in the three preceding calendar years, exceeded the average amount of his contributions for these years.

1949

Two changes were made by the lawmakers in 1949 which:

Increase the maximum weekly benefit amount (from $18.00) to $20.00 a week;

Extend the maximum duration (from 16 weeks) to 18 weeks.

Fund Affected By Changes in Law

In order to examine these numerous changes and adjustments which have been made in the law they may be classified according to their effects upon the unemployment compensation trust fund.

Accumulation of funds is accomplished through the contributions required of employers, on the basis of their wage-payrolls. Changes in the law which affect the rate of these contributions are accordingly isolated into one group.

Benefits during periods of unemployment involve the requirements for qualifying for such benefits and the amounts of such benefits to be paid under the varied conditions which may exist. Changes in the law affecting benefits are therefore isolated into another group.

Amendments to the law dealing with clarification of its terms, simplification of the language to permit better view of the legislative concept, and functional changes which have no monetary effect, or a vague and remote monetary effect, form a third group which is less potent in an economic study of the unemployment compensation structure.

The first two classes reflect legislative effects upon the fund through the years. Modifications in the program made in 1939, prior to beginning of benefit payments, have been omitted from this classification, as they were preliminary refinements of the system, rather than amendments to a plan already operating.

Other Amendments Indeterminate as to Effect

Many other amendments affect the fund, either by changing amount of contributions required of employers, or by changing the amount of benefits payable, but do not lend themselves to arithmetical computations as to the amounts involved.

Benefit payments were decreased to a minor extent by the 1941 amendment making total as well as partial workmen compensation benefits a disqualifying factor with respect to unemployment insurance.

Changes tending to increase the benefit total include: freezing of wage credits earned by workers inducted into the service; extending the interstate system to include Canada; permitting

Table 3

AMENDMENTS
1941-1949

Affecting Benefit Payments

Year	Amendment	Effect Upon Benefits to 1950 Decrease	Increase
1941	Removing off-set provisions	$ 500,000	$
1941 1943 1945	Fewer waiting weeks—results in more compensable weeks		500,000
1943	Exclusions	500,000	
1945	Increasing Exemptions		200,000
1947	Eliminate $5 and $6 checks, estimated effect	62,000	
1947 1949	Changing formula and maximum benefit		1,770,000
1949	Extending duration to 18 weeks		383,000
	Totals	$ 1,062,000	$ 2,853,000
	Net Benefit Increase to 12-31-1950		$ 1,791,000

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Affecting Contributions

Year	Amendment	Effect Upon Fund to 1950 Decrease	Increase
1941	Exclude wages above $3,000	$ 3,000,000	$
1941	National banks		230,000
1947	Experience rating	7,850,000	
	Totals	$10,850,000	$ 230,000
	Net Contribution Decrease to 12-31-50		$10,620,000

payment to claimant who became ill or was injured after initiating his claim; allowing combine of wage credits from several states to establish eligibility.

Contributions were increased to an extent not readily computed in dollars and cents by: granting of power to collect through liens; fixing minimum penalty of $5.00 for delinquent reports; providing for jeopardy assessment of payrolls.

Decreases of undetermined amounts in contributions resulted from: outlawing collection suits on contributions after five years; eliminating college clubs and other specific organizations from liability; exclusion of wages of newsboys from the requirements; and other miscellaneous exclusions of minor nature.

Summary

Disregarding the variations resulting from these indeterminate amounts, the compilation shows that amendments tending to increase benefit payments are nearly $9,000,000 short of the amendments tending to decrease employer contributions tax. In other words, the law changes have been heavily weighted toward relieving employers of payment requirements, and the benefit increases fall considerably short of keeping pace.

V
NEIGHBOR STATE PROVISIONS

Key provisions of the laws of Montana and ten of her neighbor states, governing fundamentals of their unemployment insurance system in effect July 1, 1951, are summarized in the accompanying tabulations for purpose of ready comparison. While there are striking similarities in the unemployment compensation laws of all these states, there are at the same time some clearly marked differences.

It has been found practicable to tabulate the subjectivity provisions, payroll tax rates, type of experience rating factor, chargeability of benefits to employer account, type of benefit week, base period, benefit year, waiting period, wage required for qualification, unemployment definition, weekly benefit amount, partial benefit amount, duration of benefits, qualifying requirements as to work availability, usual disqualification grounds, and period allowed for filing appeal from determination or decision.

The states selected for this study are the northwestern, coast, and mountain states with which Montana's relations in the field of unemployment insurance are most active. Examination of the provisions quoted affords a birdseye view of the system in each of the states. In fairness, however, it should be stated that some provisions which are not included in the tabulation may greatly modify the amount or duration of unemployment protection prevailing in a given state. The birdseye view is not sufficient to give a thorough understanding of all features of these rather complex systems.

Size of Firm

Definition of the minimum employment by an employer rendering that unit subject to the terms of the unemployment insurance system is a fundamental step in determining which employers are required to pay the payroll contributions into the benefit fund.

The federal law upon which all state laws are modelled sets up all employers of eight or more workers in at least a part of twenty different weeks in the current or preceding calendar

Table 4

SUBJECTIVITY PROVISIONS, PAYROLL TAX RATES, AND CHARGEBACK OF BENEFITS, ELEVEN WESTERN STATES

(July 1, 1951)

STATE	Size of Firm	Payroll Tax Rate, Percent					Type of Experience Rating Formula	Employer Account Chargeable With Benefit		
		Maximum Possible	Maximum Reduced	Minimum	Number of Reduced Rates	Average of Rates		Most Recent	In Inverse Chron. Order	All B. P. Employers
California	1 at any time and $100 wage in quarter	2.7	2.5	0.	14	1.8	Reserve Ratio			X
Colorado	8 in 20 weeks	2.7	2.4	0.	9	.7	Reserve Ratio		Up to $197.17	
Idaho	1 at any time and $75 wage in quarter	2.7	2.5	0.9	9	2.0	Reserve Ratio	X		
Minnesota	1 in 20 weeks 8 in city less than 10,000	3.0	2.5	.1	13	.7	Benefit Ratio			X
MONTANA	1 in 20 weeks or $500 wages in year	2.7	2.5	1.0	4	1.8	Payroll Variation and Benefit Ratio	X		
North Dakota	8 in 20 weeks	2.7	2.5	.25	10	1.8	Reserve Ratio			X
Oregon	4 in 6 weeks and $500 wage same quarter	2.7	2.4	.3	8	1.7	Reserve Ratio		Up to ¼ B. P. Wages	
South Dakota	8 in 20 weeks	2.7	2.0	0.	5	1.0	Reserve Ratio and Benefit Ratio		Up to proportion to total	
Utah	1 at any time and $140 wages in quarter	2.7	1.4	.8	5	1.1	Payroll Variation	(None, rates based on "payroll variation", quarterly and annual)		
Washington	1 at any time and $500 wages in year	2.7	No rate classes, individual credits			2.7	Payroll Variation	(None, credits based on "payroll variation", annual.)		
Wyoming	1 in any time and $500 wages in year	2.7	2.2	.2	6	1.1	Benefit Ratio			X

year as a basic requirement. The state may lower this standard at its discretion. Nearly two-thirds of the state laws have dipped lower than the "eight in twenty weeks" requirement.

Montana adopted the standard of one worker during some part of at least 20 different weeks as its basis, and since 1941 has had the alternate provision that the employer who pays $500 or more in wages during a calendar year is subject. Five other states in the study use one employee at any time as the guide to subjectivity, adding a total wage requirement of from $75 to $140 in one calendar quarter, or $500 in a year, or in the case of Washington no wage floor at all. The other four states are California, Idaho, Utah, and Wyoming.

Minnesota has a provision paralleling that of Montana but applying only to employers operating in a city of more than 10,000 population; smaller cities are governed by a minimum of eight employees during some part of 20 different weeks. Oregon defines employer as one who has four employees during six separate weeks and pays $500 in wages during the quarter. Colorado, and North and South Dakota, each set eight employees in 20 weeks as their minimum standard for a subject employer.

With slight variations all these states define an employer as a unit engaged in industrial operations other than the excluded industries. The excluded industries are agriculture, interstate railroads, government, religious and charitable institutions, and minor additional classifications.

The employer liable to the unemployment compensation payroll tax (contribution) is said to be a subject, or a covered, employer. The worker whose wages are paid by a subject employer is deemed to be in covered employment. Only such wages are reckoned as wage credits in qualifying him for possible unemployment compensation benefits.

This, of course, means that wages from any unit or division of government, wages earned in agricultural pursuits, wages paid by an interstate railroad, and wages of the other excluded segments of employment, are in no case calculated as qualifying the recipient for unemployment compensation benefits.

Payroll Tax Rate

All states operate under some form of experience rating for rate-fixing purposes. These systems are designed to fix a lower payroll contribution rate for the employer whose employment is stable than for the employer whose fluctuations result in pro-

ducing unemployment for part or all of his employees. The operation of experience rating, sometimes called merit rating, provides some form of sliding scale according to the employment experience of the employer.

As described elsewhere in this volume, Montana fixes a range of four reduced and one fixed rate from 2.7 percent down to one percent for its tax scale, and requires them to be so adjusted as to yield approximately 1.8 percent of total subject payrolls.

The tabulation shows the maximum possible rate in ten of the eleven states to be the standard 2.7 percent, which is the maximum offset permitted in the federal act under which the systems are created. Minnesota allows a possible maximum of 3 percent. Three states provide as their minimum a tax-free reward to employers achieving the highest standards of employment stability. Montana's minimum rate is one percent. Idaho has a minimum of 0.9 percent, and the others set minimums at from 0.1 percent to 0.8 percent. Washington uses a system based on individual credits and has no rate classes; no individual credits are issued until that state's surplus in the benefit fund has been built up to its minimum standard.

All state systems provide for returning to a uniform maximum rate in event of depletion of its reserve below a stipulated level. In Montana this floor is $18,000,000.

The number of reduced rates, by states, shows considerable variation. This is an arbitrary standard fixed in each individual law; the more rate levels there are the smaller the steps between rates. California allows the greatest number with 14, Minnesota has 13, North Dakota ten, Colorado nine, and so on down to the four reduced rates in Montana.

Average of rates is more illuminating in measuring the income to the benefit fund. This, too, is a provision of the law and is subject to subsequent legislative action. As shown in the table, the average in Washington currently is 2.7, the same as its maximum, pending the growth of its fund to meet requirements. Idaho has an average of 2 percent tax; Montana and North Dakota each average 1.8 percent; Oregon fixes 1.7 percent; the other states range downward to as low as 0.7 percent in Minnesota.

Type of Experience Rating Formula

The type of experience rating formula is the heart of that system of fixing employer contribution liability. It selects the

basic variable or variables upon which the rate structure is founded. In the nation as a whole five distinct systems are used, usually referred to as "reserve-ratio," "benefit-ratio," "benefit-wage ratio," "compensable-separations," and "payroll variation," with many variations and combinations. In the states covered by this study three of these types are used, with Montana and South Dakota using a combination embracing two or more types.

Reserve-ratio is a percentage comparison of the employer's individual balance of contribution, accumulative, after deducting benefits paid to his former employees. Reduced rates are earned only by the employer whose balance is favorable, and then according to the percentage factor. This type of formula is used in six of the northwestern and coast states.

Benefit-ratio relates the total benefits paid to former employees of a firm directly to the payroll of the firm, thus eliminating the weight of tax rate which applies to those payrolls. The theory is that if each employer pays a rate which is the equivalent of or even slightly higher than his benefit ratio, the program will be soundly financed. Unlike the reserve-ratio, the benefit ratio is geared to short-term experience.

Benefit-wage ratio measures the relative experience of employers by the separation of workers which result in benefit payments. These separations are weighted by the amount of wages earned by the worker with each of his employers in his base period. The index which is used is the proportion of these totals of separation wages to the totals of taxable wages paid by that employer to all his employees. From this is derived the rate requirement to replenish the fund.

The compensable-separations formula relates the separations which are compensable, weighted by the benefit amount of the separated worker, to the aggregate taxable payroll of the employer. The result is a merit-rating index for the employer. None of the western states studied in this chapter use the compensable-separations plan for determining its variable rates.

Payroll variation takes no account of benefit payments but measures the employment experience of the employer by extent of declines in his total of taxable wages, year by year, or quarter by quarter. It is based on the theory that such declines are a measure of unemployment risk incident to that employer. Such a theory assumes that the hazard of unemployment exists if an employer is unable to offer as much employment in one quarter,

or in one year, as he offered in the preceding like period. As employment rises, payrolls rise; as the volume of work falls, payrolls decline. Use of this measure for determining degree of unemployment produced by the individual employer makes unnecessary the identification of the individual workers affected, hence involves no reckoning of benefits paid to his former employees.

Montana uses a combination of payroll variation with a modified form of benefit-ratio in determining its rate schedule, coupled with an age factor. South Dakota combines the reserve-ratio with the benefit-ratio formula. California, Colorado, Idaho, North Dakota, and Oregon use the reserve-ratio formula alone. Minnesota and Wyoming fix their rate schedule on the variable index, Utah on a combination of annual and quarterly decline, and Washington an an annual basis.

Chargeability of Benefits to Employer Account

There are three types of chargeback used by states included in this study: (1) to the most recent employer subject to the act; (2) to the base period employers of the claimant, in inverse chronological order of the employment, and up to specified sums or proportions of wage totals; and (3) to all the claimant's base period employers in proportion to wages paid this individual.

A "chargeback" is a bookkeeping rather than a collection transaction. It refers to the process of matching the benefits paid to former employees of an employer against his contributions wage ratio or reserve ratio according to the requirements of the experience rating law, to determine his eligibility for tax rate reduction under the law. In states which provide for a benefit-ratio, reserve-ratio, or benefit-wage ratio the chargeback has direct bearing upon the rate class to which the employer may be assigned.

In Montana and Idaho the chargeback is applied to the most recent employer. Colorado, Oregon and South Dakota charge their benefits back to employers in an order chronologically inverse to the time of the individual's employment by those employers; each such employer, in turn, absorbs amounts or proportions of the benefits paid which are set up in the law.

Four other states, California, Minnesota, North Dakota and Wyoming, distribute the chargebacks to all the accounts of employers who gave him employment during the base period, in

sums proportioned to the amount of wages paid him in relation to his total wages in covered employment for the period.

Utah and Washington have no chargeback problem in their law, as their rate variations are based upon payroll declines, quarterly or annual, over the prescribed computation period.

Type of Week

Two types of week, for purposes of fixing unemployment period for benefit payment, are defined in the laws of the eleven states included in this study. The flexible week is the seven-day period beginning with the day the claimant filed his initial claim, or notice of unemployment. The calendar week is a seven-day period ending with Saturday. States employing the calendar week have various devices for determining it to begin the previous, or the subsequent, Sunday.

Montana uses the flexible week. Five other states in the study likewise set up the flexible week for their claims. The other five use the calendar week. The advantages or disadvantages of one or the other type of week are principally clerical and administrative.

Base Period

The base period is the specified time for which wage credits of an individual worker are accumulated as the basis for determining his eligibility for benefits. In all eleven states included in the study the base period consists of a full year, usually designated as four completed quarters. In all instances but two those four quarters are required to have ended at least three months before the claim is filed. This is a practical stipulation, since the most recent quarter's wages are not reported in time to be utilized in determining the wage credit status of the claimant. Utah and Colorado are the exceptions, in which states the last four completed quarters prior to the filing of the claim become the base period for reckoning his entitlement.

Three of the states in the array designate the calendar year as the base period. This fixes the calendar year preceding the benefit year as the period whose wage credits govern the claimant's entitlement. Those same states set up the benefit year to begin three to six months after the end of the calendar year which comprises the base period, thus providing automatically a lag period of from three to six months.

Table 5. TIME AND WAGE ELEMENTS OF UNEMPLOYMENT INSURANCE, ELEVEN WESTERN STATES (July 1, 1951)

State	Type of Week	Base Period	Benefit Year	Waiting Period	Wage Qualification
California	Flexible	1st 4 of 5 qtrs. or 1st 4 of 6	Individual	1 week total or partial unemployment	Base-period wages 1 1/3 times high quarter or 30 times wba, whichever is lesser, not less than $300
Colorado	Calendar	Last 4 quarters	Individual begin with filing valid claim	2 weeks total or partial unemployment	30 times weekly benefit amount
Idaho	Calendar	Calendar year preceding benefit year	Uniform begin 1st week in July	1 week total or partial unemployment	25 to 37 (plus) times wba; earnings in two quarters, high quarter wage $150 up
Minnesota	Flexible	1st 4 of last 5 completed quarters	Individual begin with filing valid claim	1 week total or partial unemployment	$300 in base period (for subsequent benefit year must have 4 times wba in last 2 quarters)
MONTANA	Flexible	1st 4 of last 5 completed quarters	Individual begin with filing valid claim	2 weeks total unemployment (see definition)	30 times weekly benefit amount (step-down provided)
North Dakota	Flexible	1st 4 of last 5 completed quarters	Individual begin with filing valid claim	1 week total or partial unemployment	30 times weekly benefit amount; wages in two quarters
Oregon	Calendar	Calendar year preceding benefit yr.	Uniform begins July 1	1 week total or partial unemployment	$400 in base period
South Dakota	Flexible	1st 4 of last 5 completed quarters	Individual begin with filing valid claim	1 week total or partial unemployment	$150 in high-quarter; minimum of $225 in base period
Utah	Calendar	Last 4 quarters	Individual, begin with valid claim	1 week total or partial unemployment	Employment in 19 weeks, wages at least $368
Washington	Calendar	Calendar year preceding benefit yr.	Uniform, begin 1st week in July	1 week total or partial unemployment	$600 in base period
Wyoming	Flexible	1st 4 of last 5 completed quarters	Individual, begin with valid claim	1 week total or partial unemployment	25 times weekly benefit amount including $70 in 1 quarter

Other states, including Montana, fix the first four of the last five completed quarters, with a slight modification in California, as the base period. By excluding the most recent completed quarter from the calculation these states also provide an automatic lag period of from three to six months whose wage credits are not considered in direct relation to the claim. In the case of Utah and Colorado the lag period may be from one day to three months.

The "lag period" is a term used to describe the time between the ending of the base period and the filing of a notice of unemployment (initiating the claim). It includes the portion of the current quarter which has elapsed, plus any quarter or other period imposed by statute.

Benefit Year

Benefit year is the period during which a worker may receive the insurance benefits to which his work experience, wage credits, and qualifications render him eligible. It is closely related by statute to the base period. In usual practice the ending of a benefit year also ushers in a new potential base period, and the individual worker may then, if unemployed, establish a new benefit year by filing a new notice of unemployment. This, of course, fixes his new base period.

Three of the states in this study have a uniform benefit year, which means that a uniform termination date is set up for all claims filed within the year period. All such claims set up within that period have the same termination date, whether or not it permits time for maximum duration of benefits.

The other eight states provide a benefit year for the claimant as one year (or 52 weeks) from the date of his filing a valid initial claim to establish benefit rights. The entitlement thus set up holds good through that year period. If not exhausted, the portion unclaimed lapses at the end of the period, when a new claim may be established, if qualified.

Waiting Period

The waiting period has two general purposes: (1) to allow time for clerical details and determination of monetary rights prior to the commencement of compensable time, and (2) to eliminate or discourage the filing of claims for very short periods of unemployment. The waiting period has a third effect: it protects

the fund by such eliminations, and postpones the beginning of compensable periods with respect to all claimants.

At its inception the system required two weeks or more of unemployment as waiting weeks in most states. This has been gradually whittled down until now there are three states in the entire nation which require no waiting period at all; two states, Montana and Colorado, which require two weeks; and in all the rest one waiting week fulfills the requirements.

In most jurisdictions the waiting period is served immediately following the filing of a valid initial claim to establish benefits. Some exceptions are made, especially in those with a uniform benefit year, to eliminate hardships in particular cases.

Wage Qualification

The wage qualification phrases differ greatly among the various states. In general the effort has been to require wage credits of sufficient amount and for sufficient duration to establish the claimant as an active participant in the labor market. The formula in many states is so drawn that employment in more than one calendar quarter is required for eligibility, on the theory that a worker who is employed only three months or less is not in the labor market.

Two of the states in this study establish a flat wage requirement applied to the entire base period, Oregon at the $400 level, Washington at $600. Utah stipulates that there must be employment during at least 19 weeks, and total wages in the base period of $352, to qualify for benefits. Minnesota sets $300 as the minimum qualifying wage in the base year, but for subsequent benefit years must have four times the weekly benefit amount in the last two quarters of the base period.

Most of the other states require some multiple of the weekly benefit amount in wages and several of these add a requirement of a flat minimum in the quarter of highest earnings. Montana sets annual earnings at 30 times the weekly benefit amount as the minimum, and uses that clause as the fulcrum for introducing a step-down provision which applies to the benefit amount where high quarter earnings fix an otherwise unsupported weekly benefit sum. South Dakota requires a qualifying wage in the base period of $125, and of this at least $60 must be in the quarter of highest earnings. California has an involved mathematical formula above $300, but the claimant must have that minimum in his base period.

Week of Unemployment

A fair degree of uniformity is found with respect to what is considered a week of unemployment. All the states in the study except Montana are agreed that a week of unemployment is a week of no work and no wages; and that a week of partial unemployment is a week of less than full time work resulting in wages less than the weekly benefit amount of the claimant.

The Montana definition of a week of unemployment allows wages up to $7 or wages for one day's work not exceeding eight hours, whichever is greater, without affecting the eligibility of the week. Since the other states provide for benefit payments for weeks of partial unemployment while Montana does not, this provision in Montana is a step in the same direction.

Self-employment for profit is viewed in the same light as any other employment. Other types of self-employment which have no aspect of tangible personal gain are usually measured first by the claimant's readiness and willingness to lay them aside for employment and secondly by his active efforts to obtain work. It is not deemed to be the purpose of unemployment compensation to encourage complete idleness of the claimant, but rather to prompt him to busy himself at useful tasks and at the same time to maintain himself in complete readiness to embrace an opportunity for work and wages.

Weekly Benefit Amount

The weekly benefit amount is probably the most potent item in the benefit schedule of an unemployment insurance law. It is usually calculated directly or indirectly with relation to the weekly wage of the claimant in customary employment. At the time unemployment insurance was instituted, the wage rates were much lower than those existing since that time. Montana's maximum weekly allowance of unemployment insurance was $15 in the early years, which constituted approximately sixty percent of the average weekly wages paid in covered industry. The maximum weekly benefit amount has progressively risen to $20 since that time but has by no means kept pace with the rise in average weekly wage.

All states fix a minimum weekly benefit amount as well as a maximum. Table 6 gives the range from minimum to maximum for the states included in this study, along with a reference to the manner in which the sums are computed. Four of these

Table 6. REQUIREMENTS AND PROVISIONS FOR UNEMPLOYMENT COMPENSATION BENEFITS, ELEVEN WESTERN STATES
(July 1, 1951)

State	Week of Unemployment	Weekly Benefit Amount	Partial Benefit Amount	Duration	Able to Work & Available for Work
California	Week of no work, no wages, or less than full-time work and wages less than wba	$10 to $25 on weighted schedule	WBA less wages in excess of $3	Lesser of 26 times wba or ½ b-p wages 15 to 26 weeks	Usual and actively seeking work
Colorado	(odd job disregarded) Week of no work, no wages, or less than full-time work and wages less than wba	$7 to $22.75, 4% of high-quarter wages	WBA less wages in excess of $3	Lesser or 20 times wba or 1/3 b-p wages 10 to 26 weeks	Usual and actively seeking work
Idaho	Week of no work, no wages, or less than full-time work and wages less than wba	$10 to $25 on weighted schedule	WBA less wages in excess of ½ wba	On weighted schedule 10 to 26 weeks	Usual and actively seeking work
Minnesota	Week of no work, no wages, or less than full-time work and wages less than wba	Annual wage formula $10 to $25, minus 1/5 each day not available	WBA less wages in excess of $3	On weighted schedule 14 to 25 weeks	Usual provisions
MONTANA	Week of no work, no wages excess of $7 or 1 day's work, whichever is greater	$7 to $20, 4½% of high quarter wages (step-down provisions)	None	Uniform, 18 weeks	Usual, seeking work, illness waiver

Table 6. REQUIREMENTS AND PROVISIONS FOR UNEMPLOYMENT COMPENSATION BENEFITS, ELEVEN WESTERN STATES

(Continued)

State	Week of Unemployment	Weekly Benefit Amount	Partial Benefit Amount	Duration	Able to Work & Available for Work
North Dakota	Week of no work, no wages, or less than full-time work and wages less than wba	*$5 to $25, 1/24 of high quarter wages	WBA less wages in excess of $3	Uniform, 20 weeks	Usual and actively seeking work
Oregon	Week of no work, no wages or less than full-time work and wages less than wba	$15 to $25 on annual wage formula, weighted	WBA less wages in excess of $2	6 to 26 weeks on weighted schedule	Usual and actively seeking work
South Dakota	Week of no work, no wages, or less than full-time work and wages less than wba	$8 to $22 on weighted schedule	WBA less wages in excess of $3	10 to 20 weeks on weighted schedule	Usual provisions
Utah	Week of no work, no wages, or less than full-time work and wages less than wba	$10 min.. $27.50 max., 5% of high quarter wage	WBA less wages in excess of $6	Weighted schedule, 15 to 26 weeks	Usual provisions
Washington	Week of no work, no wages, or less than full-time work and wages less than wba	$10 to $30 on weighted schedule, minus 1/7 each day not available	WBA less wages in excess of $8	Weighted Schedule 15 to 26 weeks	Usual and actively seeking work
Wyoming	Week of no work, no wages, or less than full-time work and wages less than wba	**$7 to $25, 5% of high quarter wages	WBA less wages in excess of $3	Lesser of 20 times wba or 1/4 b-p wages 6 to 20 weeks	Usual and actively seeking work

* Plus $2 to $6 Dependent Allowances

** Plus $3 to $6 Dependent Allowances

states, including Montana, set $20 as the maximum weekly benefit amount, while all the others allow a higher figure ranging up to $30 per week. Two states also add allowances for dependents, raising the maximum to $36. The minimum is $5 in two states, $7 in three, including Montana, $8 in one, $10 in four, and $15 in one.

The wide variance in type of formula for fixing the weekly benefit amount, along with other qualifying requirements of the several state laws, makes any comparison by dollar levels of the resulting rates highly inconclusive. Weighted schedules, each of different design, are used in at least five of the states in this group. Montana bases her formula upon four and one-half percent of the high-quarter wages, Wyoming and Utah on five percent, Colorado uses four percent, North Dakota approximately 4.1 percent; Minnesota bases the weekly benefit amount on annual wages instead of wages during the high quarter.

Partial Benefit Amount

Those states which provide benefits for partial unemployment use the regular weekly benefit amount as a base for computing the partial. The usual pattern is to deduct sums ranging from two to eight dollars from the wages involved in the partial job and pay the difference between the remainder and the regular weekly benefit amount. If the remainder exceeds the benefit amount, no partial payment is due.

Montana is the only state which does not provide for partial unemployment benefits, but as already stated, it does permit a small measure of employment without disqualifying for the regular check, since part-time earnings of $7, or wages for one full day of eight hours, whichever is greater, do not constitute disqualifying employment under this state's law.

Two states of the eleven in Montana's vicinity provide for additional sums for dependents of claimants. North Dakota adds $2 to $6, according to number of dependents, to the weekly benefit amount. Wyoming adds from $3 to $6 on the same basis.

Duration of Insurance Payments

Since the basic concept of unemployment compensation is that it is a short-time stop-gap in the experience of an unemployed person, the duration of benefit payments is limited in all state laws. The maximum under any law is 26 weeks, ranging down-

ward to 12 weeks in one state. Montana allows payments for as many as 18 weeks within the benefit year.

Many of the states adjust their duration to the amount of compensation permitted, cutting down on the number of checks to be issued to the lower bracket workers instead of allowing them a smaller amount over the full duration period. Consequently there are cut-backs in duration in many states, to as low as six benefit checks, while several others allow but ten, on a weighted schedule set up in the law.

Montana and North Dakota are the only states in this group with a uniform duration of benefits, regardless of the amount of the weekly check. Only about one-third of Montana claimants remain unemployed and qualify for their full maximum of checks. The records show that the average number of checks per claimant in a year runs from 10 to 13.

Able and Available for Work

There is a fair degree of unanimity among the states in their requirements that a claimant for unemployment insurance must be able to work and available for work. The benefits are not intended for a worker who has withdrawn from active participation in the labor market. If he is not ready and willing to accept a job, in most instances limited to a "suitable" job, his entitlement for that period is open to question and the usual provision has the possible effect of withholding insurance payment.

Two of the states, and Montana is one of these, have adopted a form of waiver for illness or disability of a claimant. This permits such a person, who has instituted his claim prior to such illness or disability, to continue reporting weeks of unemployment and receiving benefits therefor until or unless suitable employment has been offered him and acceptance was blocked by his health condition. In the other states illness or disability bar the continuance of benefit payments under the "able to work" clause.

Eight of the states, including Montana, add another requirement which stipulates that the claimant shall be seeking work. While the nature or degree of that search of work is not defined, it is apparent that legislative intent calls for more than a token availability for work and desires that claimants shall be positive in their attempts to obtain new employment.

The "able to work and available for work" feature of the laws safeguards the funds against malingering, voluntary continuation of idleness, vacationing, and other forms of procrastination which

Table 7—DISQUALIFICATION PROVISIONS AND APPEAL PERIOD, ELEVEN WESTERN STATES—(July 1, 1951)

State	Voluntary leaving most recent work without good cause	Discharge for misconduct connected with work	Refusal of suitable work without good cause	Misrepresentation in connection with claims	Disqualifying Income	Labor Dispute	Appeal Period Days
California	1 to 4 weeks	1 to 4 weeks	1 to 4 weeks	1 to 4 weeks		During Progress	7
Colorado	1 to 20 weeks, benefits reduced	1 to 20 weeks, benefits reduced	1 to 20 weeks, benefits reduced		Offset wage in lieu notice, or temporary workmen compensation	During Stoppage	11
Idaho	6 weeks if claimant seeks work	6 weeks, if seek work	6 weeks, if seek work	Until benefits are repaid		During Stoppage	14
Minnesota	3 to 7 weeks	3 to 7 weeks	3 weeks	1 or more, option of agency	Offset six usual types remuneration	During Stoppage	10
MONTANA	1 to 5 weeks	1 to 9 weeks	1 to 5 weeks	Recovery, prosecution	Disqualify for four usual types	During stoppage	5 or 7
North Dakota	1 to 7 weeks	1 to 10 weeks plus 30 day suspension	1 to 7 weeks	1 year from date of act		During stoppage	7
Oregon	4 weeks	4 to 8 weeks	4 weeks	1 to 26 weeks	Offset wages lieu notice, dismissal	During progress	5 or 7
South Dakota	1 to 5 weeks	1 to 10 weeks	1 to 10 weeks		Offset wage in lieu notice, temporary workmen compensation employer pension	During stoppage	9
Utah	1 to 5 weeks	1 to 9 weeks (51 weeks)	1 to 5 weeks	51 weeks		During stoppage	10
Washington	5 weeks	5 weeks	5 weeks	52 weeks		During stoppage	10
Wyoming	1 to 5 weeks	1 to 5 weeks	1 to 5 weeks	Cancel balance of benefits	Offset four usual types remuneration	During stoppage	7

might be practiced by claimants. Methods and devices for applying the provisions in practice are numerous and varied, beyond the range of this discussion for explanation.

Disqualification Provisions

Disqualifications are those devices which have the effect of postponing payment of benefits to claimants, even though otherwise qualified by monetary records to receive such benefits. Grounds for disqualification as defined in the several state laws have to do with circumstances concerning the separation of the worker from his job, his readiness to accept employment, irregularity in presenting his claim, receipt of certain types of remuneration while unemployed, labor strike or other labor dispute leading to the work separation, and other specified reasons.

A fairly uniform pattern of reasons for disqualifications is set up in the laws, with substantial variations in the benefit-delays imposed. The prevailing definition imposes a delay in payments, with no reduction in amount of benefits potentially payable to the claimant. Exceptions to this approach provide that the potential benefits shall be reduced by the number of weeks disqualified. Colorado applies this principle to three of its principal disqualifications; many of the states either cancel or drastically reduce benefit potentials for misrepresentations in connection with claims.

Another disqualifying effect is produced by application of the laws concerning availability for work and ability to work. In general these call for indefinite postponements, to continue until the disability or the unwillingness to work have been dissolved. Voluntary withdrawal from the labor market, or unreasonable restrictions as to work that will be accepted, or unavailability because of interference of household duties, are examples.

Six specific types of disqualification grounds are traceable in the laws of all the eleven states in this study. Four of these types have to do with the conduct of the claimant, either in connection with his separation from work or during his period of unemployment; one is concerned with certain types of concurrent remuneration in the nature of a wage-substitute; the sixth concerns idleness resulting from a labor dispute in which the claimant is a participant or an interested party.

The listing of disqualifications in Table 7 covers only the grounds most uniformly set forth in the laws of the states re-

viewed. Minor causes for disqualification, on a variety of grounds and on a more isolated pattern, might also be pointed out. Montana, for instance, denies benefits to women claimants who left their most recent work to be married. The disqualification is removable by new employment and new wage credits of qualifying extent and time.

Students who are not available for work while attending school are subject to disqualification from benefits in most states. Likewise women who are unable to work because of pregnacy are deemed unavailable for work in nearly all states; 29 states specifically deal with this phase of insurance problem in their laws, but Montana does not.

Voluntarily Quitting Without Good Cause

All of these northwestern states view voluntary separation from work without good cause as a ground for delaying the payment of benefits to the claimant. Usually some degree of administrative latitude is allowed as to the extent of the delay, in recognition of the nature of the work-desertion involved. In their very essence these laws recognize the freedom of the individual to choose his work-pattern, and at the same time introduce a responsibility for prudent and defensible action.

Disqualification imposed for voluntary quitting without good cause may be as short as one week in seven of the states listed. Montana is one of these. The maximum period ranges from four weeks in California to 20 weeks in Colorado. Minnesota sets three weeks as the minimum disqualification period, while a flat and uniform disqualification for four weeks is fixed in Oregon, and for five weeks in Washington.

The meaning of "good cause" for leaving work is partially defined in most laws, and is left to administrative definition in others. Generally the view is that the cause must be attributable to the employer or the work, or it must be in the nature of compelling personal reasons. Some states outside of the group in this study disqualify for voluntarily leaving work, regardless of cause. Others set the disqualification period at the duration of the unemployment or longer.

Discharge for Misconduct Connected With Work

Misconduct connected with the work is accepted as statutory ground for disqualification in all the northwestern states. The pattern resembles that set up for voluntarily leaving work with-

out good cause, but in several states is more harsh. Montana sets a maximum of nine weeks for discharge, and of five for voluntary separation. North Dakota and Utah have extra penalties, imposable in cases of what might be termed aggravated misconduct.

Employers bear the responsibility for disclosing to the commission the fact and the reason for discharge on ground of misconduct connected with the work, with opportunity for countering evidence from the employee concerned.

Among reasons cited for discharge for misconduct are "wilful misconduct," "deliberate misconduct in wilful disregard of the employing unit's interest," "failure to obey orders, rules or instructions, or the failure to discharge the duties for which he was employed," "dishonest or criminal acts," and "unreasonable refusal to comply with accepted standards."

Refusal of Suitable Work Without Good Cause

Since "employment itself is the best cure for unemployment," there is general agreement in these insurance systems that suitable work, when offered a claimant, should be accepted or he should forfeit at least some portion of his benefit status. Accordingly all states include provisions for disqualification in event the claimant refuses to accept suitable work without good cause.

This leaves an administrative problem for defining good cause and suitable work; at the same time it offers a means for weeding out the malingerer, the "over-choosy," and the vacationist from the benefit rolls.

States in this area provide about the same disqualification period for refusal to accept suitable work as is designated for voluntarily leaving most recent work, both without good cause. A minimum of one week is imposed in seven states, with corresponding maxima in those states of four, five, seven, and even 20 weeks; Colorado also reduces potential benefits by the number of weeks disqualified. Idaho imposes its uniform six weeks of disqualification, if the claimant seeks work. If he does not seek work he is out indefinitely. Montana sets the period at one to five weeks, and subsequent refusals also are open to a similar deferral of benefits.

Misrepresentation in Connection With Claims

Nearly all states provide direct disqualification for those claimants who misrepresent material facts in connection with their claim for the purpose of securing a higher benefit than

merited, or to obtain benefits to which they are not entitled. This phrase covers a wide latitude. Misrepresentation may be in the form of concealing present employment or availability for work, falsifying amount of wages during benefit periods, collusion, and a myriad of other deceits. Wilful intent to deceive is the test for an offense of the kind.

Montana provides prosecution and enforcement machinery for this type of offense, over and beyond restitution of amounts illegally received. Five of the states in the area cancel out the claimant's benefit rights during that year, Idaho disqualifies until the benefits are repaid, and Minnesota leaves the maximum disqualification period to the option of the administrative agency.

Methods for detecting violations of the kind have been polished up in all states during the past several years. Wage records are being checked for employment of claimants during benefit periods. Investigations on a sample basis are applied to point out general practices and search out individual offenders. Increasing vigilance and scrutiny on the part of officials handling the transactions are being applied, and more frequent resort is being had to penalty enforcement through court action.

Disqualifying Income

Disqualification for any week during which the claimant is also seeking benefits under any other federal or state unemployment insurance law is a normal provision in all states. This simply means that a worker with wage credits in more than one state or under railroad or other industrial systems is not permitted to receive concurrent benefits from such source and the state in question.

Other "disqualifiying income" includes in most states: wages in lieu of notice of separation, temporary workmen compensation, vacation pay, dismissal wages, employer pension, primary insurance benefits under old age and survivors act, and related income. Some states provide for an off-set of these types of payment against the weekly benefit amount under unemployment insurance, and payment of the difference, if any. Montana does not now provide for an off-set payment.

In general these provisions relate to payments which are in some sense a substitute for, or in lieu of, wages, on the theory that unemployment insurance payments in such instances would be a duplication of wage income.

Labor Dispute

The worker who is unemployed because he is out on strike, or is either a participant in a strike or directly interested in a labor dispute, is subject to disqualification during the work stoppage involved, in all the jurisdictions included in this study. Montana makes a partial exception—the worker, unemployed by reason of a labor dispute wherein it is found that such labor dispute is caused by the failure or refusal of any employer to conform to state or federal law pertaining to wages, hours of work, collective bargaining, or other condition of work, is thereby relieved of the disqualification.

The theory behind this exclusion from benefits is that the worker who is on strike is not involuntarily unemployed. In most states the disqualification applies only if the most recent employment was interrupted by the labor dispute. This provides a possible means for dissolving the bar against benefits through a subsequent period of employment and acceptable termination. In a few instances the period of disqualification for work stoppages caused by strikes is a definite number of weeks, seven or eight for instance, after which eligibility is restored. In some state laws, particularly in the industrial area of the east, work stoppage caused by a lockout is not a disqualifying cause.

There are many variations in the phraseology governing the treatment of claims from strike-bound workers, making specific comparison both difficult and inconclusive. The disposition of responsible lawmakers seems to have been to avoid granting unemployment benefits which might tend to prolong the dispute, and similarly to avoid penalizing workers for the employer's (lockout) action.

The Appeal Period

A fairly uniform pattern is presented in the length of time permitted an aggrieved person to appeal from a decision or action which he believes to be out of conformity with the law or the facts. Montana and Oregon allow five days after delivery of the decision to the person affected, or seven days from mailing it to the current address. Two other states, California and Wyoming, set the time limit at seven days, others range upward to the fourteen days fixed in Idaho.

For the benefit of the uninitiated, it should be mentioned that an appeal procedure is provided in virtually every jurisdiction

of unemployment insurance. The claimant is thus provided with a ready means, without expense, of securing a hearing on decisions which he believes are in contravention either of the facts or of the law. The appeal period is merely a definite time limit for the filing of an appeal request.

These appeal rights are extended on both monetary determinations and disqualification actions, and in the case of Montana are open both to the employer and the claimant. The appeal may lead to a hearing on the issues by a tribunal set up under the law, may be carried from that point to the administrative authority itself, may be opened again for review, and may finally be carried into the courts for adjudication.

For the purpose of adjusting differences concerning factual matters most states, including Montana, provide for a re-determination or revised decision in the light of facts not previously supplied, thus disposing of many incipient appeals before they reach the appeal stage.

VI

CLAIMANT CHARACTERISTICS

The study of unemployment insurance benefit financing in Montana encompasses many phases of the state's economy and social structure. Among factors affecting fiscal conclusions are what might be termed claimant characteristics and the experiences of claimants after they had exhausted their benefit rights under the program.

Concerning these "claimant characteristics" and "post-exhaustions", a study was made through sampling techniques of nearly 10,000 individual claimants for the period January 1 to June 30 of 1949. The data on claims transactions, and the resulting sample, are given in this summary:

Table 8

CLAIMS TRANSACTIONS AND SAMPLING DATA
January 1 to June 30, 1949

	Aggregate		Sample	
	Number	Percent	Number	Percent
Initial Claims Received	10,649	100.00		
Ineligible, insufficient wage	673	6.32		
Eligible, sufficient wage	9,976	93.68	2,897	29.03
Benefit Payments—				
None	1,480	14.84	441	15.19
One or more	8,496	85.16	2,457	84.81
Exhaustions (18 benefits)	2,814	28.16	807	27.64
Not exhausting benefits	7,162	71.79	2,090	72.36
Average number of benefits per claimant	10.7		10.3	

Questionnaires addressed to the 2,897 claimants included in the sample explained the purpose of the survey, assured that answers would be held in strict confidence, and that the answers were voluntary and not compulsory. In the commission files was a storehouse of information respecting each claim which was used in the study, supplemented by information derived from replies to the questionnaire. The questions were designed to explore personal factors and the employment experience of the claimant after his last check was furnished him. Answers were obtained from 1,531 of those selected in the sample.

Special inquiries were addressed to the 807 claimants in the sample who had obtained the maximum 18 weekly benefit checks during their benefit year, referred to as exhaustions, and 592 returns were received.

Data compiled from the commission records and from replies to the questionnaires are presented in the accompanying tables.

Age and Sex of Claimants

Average age of women claimants in the sample was nearly five years less than that of men, with a higher percentage of women than of men engaged in employment up to 40 years of age, from which point the percentage comparison is reversed. Over 70 years of age the percentage of both sexes continuing at work was reduced sharply.

The age brackets from 20 to 39, shown in Table 9, embraced almost 50 percent of the women but only a third of the men. The group ages 40 to 59 included 41 percent of the men claimants, and 33 percent of the women. Nearly 15 percent of the men claimants were 60 or over in age, while only 6.3 percent of the women were in that age range.

Table 9.

AGE AND SEX OF CLAIMANTS

Size of Sample, 2,897 — Average Age 43.5
Males, 2,176 (75.1%)—Average Age 44.7; Females, 721 (24.9%)—Average Age 39.9

Age In Years	Claimants		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Under 20	145	5.0	106	4.9	39	5.4
20 - 29	486	16.8	311	14.3	175	24.3
30 - 39	595	20.5	424	19.5	171	23.8
40 - 49	599	20.7	465	21.4	134	18.7
50 - 59	519	17.9	412	18.9	107	14.8
60 - 69	330	11.4	285	13.1	45	6.2
70 and over	36	1.2	34	1.5	2	.1
Unknown	187	6.5	139	6.4	48	6.7
Total	2,897	100.0	2,176	100.0	721	100.0

Industry from Which Claims Originate

Table 10 affords a comparison of the major industry groups with respect to their average 1949 employment and the claim load produced by claimants whose last covered employment was in those industries.

Wholesale and retail trade employed the largest percentages of the covered labor force, and also contributed the highest per-

centage of the total claim load. It stood near the top in proportion of women help on the payroll. Much of the unemployment in trade is a result of seasonal peaks and valleys of employment in primary industries.

Climatic influences multiply the seasonal aspect of employment in contract construction, doubling its proportion of workers in the claimant column. Unemployment in the mining industry is traceable in part to the annual rise of coal mining employment in winter and its decrease through the summer. Likewise the manufacturing industry produces a measure of unemployment through the seasonal nature of such enterprises as food processing, canning, sugar refining, and lumbering.

Stability of employment in transportation, communication, and utilities, and to an even greater degree in finance, insurance and real estate, is graphically portrayed in the relative proportions of employment and of unemployment recorded.

Table 10

INDUSTRY AND SEX OF CLAIMANTS

Industry (a)	Percent of (1) Covered Workers	(2) Claimants	Ratio (1) to (2)	Sex of Claimants (Percent) Male	Female
Mining	9.7	13.9	0.7	99.3	0.7
Contract Constr.	9.9	20.6	0.5	98.7	1.3
Manufacturing	18.1	24.4	0.7	19.5	9.5
Trans., Com., Util.	7.7	3.5	2.2	79.2	20.8
Wholesale, Retail Trade	37.1	27.8	1.3	43.0	57.0
Fin., Ins., Real Estate	3.7	0.8	4.8	40.9	59.1
Service, Miscellaneous	13.8	9.0	1.5	42.4	57.6
Total	100.0	100.0		75.1	24.9

(a) Classified by last employer in base period.

Age Range by Industry

Age of claimants was highest from the mining industry, where 46.5 years was the average, closely followed by 44.7 years average in service and miscellaneous. The lowest average comes in the finance group, with 35.6 years, followed by transportation with an average of 41.7 years. Average age of all claimants in the sample was 43.5.

Wholesale and retail trade consistently furnished the greatest percentage of claimants through all the age brackets up to 60 years, then fell below both manufacturing and construction. The service group came prominently into the picture for ages 70 or more.

Table 11. INDUSTRY, AGE AND SEX OF CLAIMANTS

Age In Years	Number of Claimants		Percent in Industry Group													
			Mining		Constr.		Manu-facturing		Trans., Com., Util.		Trade		Finance		Service, Misc.	
	Male	Female	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Under 20	106	39	13.2	----	23.6	2.6	35.8	12.8	6.6	2.6	17.9	74.4	----	2.6	2.8	5.1
20 - 29	311	175	12.9	0.6	26.4	1.1	35.4	9.7	4.5	4.0	15.1	61.1	0.6	5.1	4.2	18.3
30 - 39	424	171	16.5	0.6	29.7	0.6	30.0	5.3	4.2	4.1	14.6	67.3	0.2	----	4.5	21.6
40 - 49	465	134	23.0	0.7	26.7	0.7	27.5	12.7	2.6	0.7	14.8	66.4	----	0.7	4.7	17.9
50 - 59	412	107	22.8	----	25.7	0.9	26.0	8.4	3.2	----	15.8	68.2	0.2	----	5.3	22.4
60 - 69	285	45	20.0	----	26.7	----	26.0	4.4	3.9	4.4	18.6	44.4	0.4	4.4	3.5	42.2
70 and over	34	2	2.9	----	29.4	----	32.4	----	8.8	----	14.7	----	----	----	11.8	100.0
Unknown	139	43	12.2	----	29.5	4.2	32.4	16.7	1.4	6.2	18.7	52.1	2.9	----	2.9	20.8
Total	2,176	721	18.4	0.4	27.1	1.1	29.4	9.3	3.7	2.9	15.9	63.5	0.4	1.8	5.1	21.4
Average Age	44.7	39.9	46.6	35.0	38.5	37.0	43.3	39.4	41.8	35.0	43.7	39.7	41.0	33.3	45.9	42.1

Uniformity of the age pattern in manufacturing, and in the service and miscellaneous industries, is reflected in the compiled figures. Mining furnished an increasing percentage from 20 years up to 59 years, then dwindled in the higher age divisions. Construction wage earners had an increasing percentage of claimants as the ages advanced, and were exceeded only by manufacturing in the proportion above 70.

Table 12
AGE AND INDUSTRY OF CLAIMANTS

Age In Years	Number	Percent in Industry Group						
		Mining	Construction	Manufacturing	Trans., Com., Util.,	Trade	Finance	Service, Miscellaneous
Under 20	145	9.7	17.9	29.7	5.5	33.1	0.7	3.4
20 - 29	486	8.4	17.3	26.1	4.3	31.7	2.3	9.9
30 - 39	595	11.9	21.3	22.9	4.2	29.7	0.2	9.7
40 - 49	599	18.0	20.9	24.2	2.2	26.4	0.2	8.2
50 - 59	519	18.1	20.6	22.4	2.5	26.6	0.2	9.6
60 - 69	330	17.3	23.0	23.0	3.9	22.1	0.9	9.7
70 and over	36	2.8	27.8	30.6	8.3	13.9	....	16.7
Unknown	187	9.1	23.0	28.3	2.7	27.3	2.1	7.5
Total	2,897	13.9	20.6	24.4	3.5	27.8	0.8	9.0
Average age	43.5	46.5	44.3	43.0	41.7	42.1	35.6	44.7

Age and Sex, By Industry

Percentages of men and women claimants, by age groups, are distributed in Table 11 among the basic industries in which they had been employed. This provides a view of the degree to which unemployment insurance is utilized by men and women, it further identifies the industry group from which the unemployment stems, and finally shows the age characteristics of the claimant group as a whole and from each industry.

Average age of men claimants was approximately 45, that of women was 40. The industry whose claimants were of the highest average age was mining, and the lowest was construction. Women claimants from the service industry averaged the highest in age, those from finance, insurance and real estate the lowest. Nearly two-thirds of all women claimants came from retail and wholesale trade, and their average age was very close to the average for the entire sample.

Men claimants were most numerous in the manufacturing industry, followed by construction, mining, and trade, in that order. These four groups accounted for 90 percent of the male claimants in the sample.

Marital Status and Dependents

Less than one-fifth of the claimants responding to the questionnaire were single, while nearly two-thirds were married; minor percentages were widowed, divorced or separated. A small group failed to specify marital status.

Table 13

MARITAL STATUS OF CLAIMANTS

Status	Claimants		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Single	277	18.1	244	88.1	33	11.9
Married	1,009	65.9	743	73.6	266	26.4
Widowed	96	6.3	38	39.6	58	60.4
Divorced	83	5.4	54	65.1	29	34.9
Separated	23	1.5	12	52.2	11	47.8
No Answer	43	2.8	29	67.4	14	32.6
Total	1,531	100.0	1,120	73.2	411	26.8

Men outnumbered women nearly three to one in this section of the study, while unmarried men claimants outnumbered unmarried women claimants more than seven to one. The reverse was true with respect to widowhood, there being three widows to two widowers in the sample. Claimants who were separated but not divorced divided almost equally as to sex.

Under present Montana law no distinction is made as to marital status of the claimant and with a single exception the sex of claimant is not a factor. The exception is the provision withholding benefit payments from a woman who leaves her most recent work to be married. Montana law is also silent with respect to pregnancy as related to eligibility for benefits.

Dependents

More than sixty percent of the claimants responding to the questionnaire indicate that they have no children under the age of 18 dependent upon them for support, as shown in Table 14. The largest group with children had but one dependent, 14 percent falling in that class; there were 11 percent reporting two dependents, 7 percent with three, 3 percent with four; 2 percent with five, and nearly 1.5 percent with six or more.

The cross-section thus reveals a higher proportion of claimants having no dependent children of minor age than prevails in

the general population of the state, reflecting the preponderance of those workers whose children are out of the minority stage.

Table 14

NUMBER OF DEPENDENTS OF CLAIMANTS

Dependents	Claimants		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
1	214	14.0	157	73.4	57	26.6
2	171	11.2	142	83.0	29	17.0
3	110	7.2	93	85.5	16	14.5
4	44	2.9	37	84.1	7	15.9
5	32	2.1	30	93.8	2	6.2
6 or more	21	1.4	21	100.00	0	0.0
None	939	61.2	639	68.1	300	31.9
Total	1,531	100.0	1,120	73.2	411	26.8

Dependencies of claimant run to greater number among the male claimants than the female, the disparity increasing with number of dependents. This is supported by practical consideration—the mother of five or six children has had limited time in which to earn wage credits and is amply supplied with time-consuming duties which tend to preclude employment in industry.

Qualifying Earnings

Eligibility to receive unemployment insurance benefits depends directly upon earnings of the individual for employment in what is termed covered industry, which simply means employment by an employer whose payroll is subject to payment of contributions to the unemployment compensation trust fund under terms of the law. Amount of such earnings, and the period of time in which they were earned, have direct bearing on benefits.

As described in more detail in another chapter, unemployment insurance benefits rest upon wage credits in covered industry in the base period, which is the first four of the last five completed calendar quarters preceding the filing of the initial claim by the individual. Under terms of the law significance attaches to the wage total in that quarter of the base period in which the worker's earnings were highest, with a supporting significance pertaining to the total of wages received during the periods of employment for covered employers within all four quarters of the base period.

Accordingly the amount of earnings by claimants included in this study are tabulated to reveal earning characteristics with respect to high quarter, base period, industry in which claimant's most recent employment occurred, and the sex of the claimant.

High Quarter and Base Period

Earnings of the claimants in the sample, first in the quarter in which their earnings were highest, and secondly in the base period, are shown in Table 15. Only about one-eighth of the claimants in the sample had earnings of less than $300 in their best quarter, while more than one-fourth of them had $800 or more in the top quarter.

One out of ten had total credits of $3,000 or more in the twelve months comprising their base period, while sixty percent rated less than $1,500 for that period.

Table 15

EARNINGS OF CLAIMANTS—BY HIGH QUARTER AND BASE PERIOD

High Quarter Earnings	Claimants Number	Claimants Percent	Percent Having Base Period Earnings of: $210-499	$500-999	$1000-1499	$1500-1999	$2000-2499	$2500-2999	$3000 & Over
$ 52.51-$ 99.00	4	0.1	0.1	.....	.....	.....	.....	.....	.....
100.00- 199.00	88	3.1	2.8	0.3	.....	.....	.....	.....	.....
200.00- 299.00	280	9.7	6.9	2.6	0.2	.....	.....	.....	.....
300.00- 399.00	415	14.3	4.0	5.9	2.9	0.5	.....	.....	.....
400.00- 499.00	372	12.9	2.2	5.5	3.0	2.2	.....	.....	.....
500.00- 599.00	334	11.5	.....	5.2	3.2	2.4	0.7	.....	.....
600.00- 699.00	320	11.0	.....	3.2	2.7	2.7	2.2	0.2	.....
700.00- 799.00	298	10.3	.....	1.9	1.8	2.0	2.2	2.0	0.4
800.00 & over	786	27.1	.....	1.6	2.9	3.7	4.3	4.9	9.7
Totals	2,897	100.0	16.0	27.2	16.7	13.5	9.4	7.1	10.1
Number of Claimants			464	787	485	390	270	206	293

Industry and Base Period

The base period comprises a full year period which began at least fifteen months but less than eighteen months prior to the filing of the claim for benefits by the individual to whom it pertains. The calendar quarter of these four full quarters in which

the claimant's earnings were greatest is referred to as the "high-quarter," the earnings in the other three quarters are supplementary in the computation of benefit rights.

The mining industry had a greater percentage of claimants with total base-period earnings of $3,000 or more than is reflected in any other industry. Next in rank were the claimants who came from employment in contract construction, closely followed by those in transportation, communication and the utilities.

On the other end of the scale was wholesale and retail trade, nearly a fourth of whose workers had earnings of less than $500. Heaviest concentration, for all industries as a whole, occurred in the $500 to $1,000 total earnings bracket. In the aggregate, sixty percent of the claimants had earnings of less than $1,500. These figures, of course, do not measure the average earnings in the industries under discussion, but merely the average earned by those employees who found themselves unemployed and qualified for insurance during a period or periods of unemployment.

Table 16

EARNINGS OF CLAIMANTS—BY INDUSTRY AND BASE PERIOD

Industry	Number of Claimants	Percent Having Base Period Earnings of: $210-499	$500-999	$1000-1499	$1500-1999	$2000-2499	$2500-2999	$3000 & Over
Mining	403	6.2	16.6	14.9	14.6	10.7	12.2	24.8
Contract Constr.	598	10.7	25.9	17.6	13.4	11.2	9.0	12.2
Manufacturing	707	15.4	27.6	16.1	13.6	13.2	6.6	7.5
Trans., Com., Util.	101	12.9	23.8	9.9	16.8	18.8	6.9	10.0
Wholesale, Ret'l Trade	804	23.9	32.2	16.4	12.2	4.9	4.7	5.7
Fin., Ins., Real Estate	22	4.5	27.3	50.0	9.1	....	4.5	4.5
Service, Miscellaneous	262	22.9	30.9	20.2	14.5	4.2	3.8	3.4
Total	2,879	16.0	27.2	16.7	13.5	9.4	7.1	10.1
Number of Claimants	464	787	485	390	270	206	293	

Industry and High Quarter

Nearly one-half of the listed claimants had high-quarter earnings of $600 or more, as shown in Table 17, and an almost negligible percentage earned less than $200 in their best quarter.

Mining employees dominated the higher paid brackets, followed by contract construction, manufacturing, and the trans-

portation group in order. Trade and service furnished but few claimants in the top wage level, and none at all came from the finance field.

The near-marginal claimants, with earnings below $200 in their best quarter, came principally from trade, service, and transportation, and in these brackets, again, there were no claimants from the finance, insurance and real estate employment group.

Importance of high-quarter earnings under the Montana law rests upon the fact that such earnings are the prime base for establishing the amount of the weekly benefit check. A supplementary effect inheres in the earnings in other than the high-quarter, especially in the lower brackets.

Table 17

EARNINGS OF CLAIMANTS—BY INDUSTRY AND HIGH QUARTER

Industry	Number of Claimants	Percent Having High Quarter Earnings of: $52.50-99.00	$100-199	$200-299	$300-399	$400-499	$500-599	$600-699	$700-799	$800 & Over
Mining	403	.....	0.7	2.7	6.2	7.4	10.7	11.7	13.4	47.1
Contract Constr.	598	0.5	1.5	6.0	8.9	5.9	10.7	12.0	10.2	44.3
Manufacturing	707	0.1	1.7	8.3	9.5	11.0	10.9	13.0	16.3	29.1
Trans., Com., Util.	101	.....	3.0	6.9	11.9	8.9	15.8	15.8	9.9	27.7
Wholesale, Retail Trade	804	.....	6.0	15.5	23.4	18.9	12.6	8.2	5.3	10.1
Fin., Ins., Real Estate	22	.....	.....	4.5	45.2	27.3	4.5	13.6	4.5	.....
Service, Miscellaneous	262	.....	5.0	15.6	22.9	23.7	12.2	9.2	5.3	6.1
Total	2,897	0.1	3.0	9.5	14.1	12.7	11.4	10.9	10.1	27.1
Number of Claimants		4	88	280	415	372	334	320	298	786

Industry, Sex and Base Period

The high-quarter earnings were broken down according to the sex of the claimant. Nearly two-thirds of the female claimants came from wholesale and retail trade, while nearly a third of the men were from manufacturing, which includes the timber workers. Since pay scales for women generally range below those of men, the preponderance of women in trade accounts in part for the heavier percentage of trade claimants in the lower wage brackets in Table 18.

Table 18—EARNINGS OF CLAIMANTS—BY SEX, INDUSTRY AND BASE PERIOD

Industry	Claimants Male	Claimants Female	Percent Having Base Period Earnings of: $210.00-499.00 M	$210.00-499.00 F	$500.00-999.00 M	$500.00-999.00 F	$1000.00-1499.00 M	$1000.00-1499.00 F	$1500.00-1999.00 M	$1500.00-1999.00 F	$2000.00-2499.00 M	$2000.00-2499.00 F	$2500.00-2999.00 M	$2500.00-2999.00 F	$3000.00 & Over M	$3000.00 & Over F
Mining	400	3	6.3	-----	16.8	-----	15.0	-----	14.5	33.3	10.5	33.3	12.3	----	24.8	33.3
Contract Constr.	590	8	10.7	-----	25.6	50.0	17.1	50.0	13.6	-----	11.4	-----	9.2	----	12.4	----
Manufacturing	640	67	13.4	34.3	26.7	35.8	16.1	16.4	14.5	4.5	13.9	6.0	7.2	1.5	8.1	1.5
Trans., Com., Util.	80	21	12.5	14.8	26.2	14.8	8.8	14.8	12.5	33.3	21.2	9.5	6.2	9.5	12.5	4.8
Wh'sale, Retail Trade	346	458	14.7	30.8	25.7	37.1	16.2	16.6	14.5	10.5	6.4	3.7	11.0	----	11.6	1.3
Fin., Ins., Real Estate	9	13	11.1	-----	22.2	30.8	33.3	61.5	11.1	7.7	-----	-----	11.1	----	11.1	----
Service, Miscella'ous	111	151	15.3	28.5	29.7	31.8	18.0	21.9	16.2	13.2	7.2	2.0	7.2	5.3	6.3	1.3
Total	2,176	721	11.7	29.1	24.5	35.1	16.1	18.7	14.2	11.1	11.3	3.7	9.2	0.7	13.0	1.5

The summation for all industries indicates that eighty percent of the women, and fifty percent of the men claimants earned less than $1,500 in their base period. In the minimum bracket, earning less than $500, were about an eighth of the men and nearly a third of the women. Percentagewise, the women claimants were concentrated in the wage brackets below $2,000, only about five percent appearing with earnings above that figure, while more than a third of the men earned more than $2,000 each.

Recent Employment Experience

Tables 19 and 20 are grouped under this heading as they both deal with the employment experience of the claimants with respect to duration rather than wages earned. Wages are reported by employers on a calendar quarter basis, hence the summaries deal with employment by quarters, rather than by weeks or months. From such data it is possible to survey the seasonal pattern of certain types of employment, and its impact upon the insurance program. They also serve to index the degree of attachment of the claimant to the labor market.

Obviously these disclosures are of general nature, affected by variations in individual instances. Claimants working only one or two quarters may have been youths recently entering the labor market; may have been in-migrants of comparatively recent arrival; may have worked in non-covered employment or at self-employment during part of their year; or may have had other reasons for having been in covered employment only part of their base period.

More than 42 percent of the sample claimants had employment in all four quarters of their base period, another 22 percent had employment in at least three quarters, still another 23 percent in two quarters, leaving a mere 12 percent with employment in only a single quarter.

Claimants from the mining industry, from transportation, and from the finance group, led the procession in average number of quarters of employment, each averaging more than three. Other industries were close up toward three quarters. Seasonal nature of employment in the construction industry is reflected as that industry had the lowest average of any group.

In general the age groups followed a fixed pattern of distribution into the different periods of employment. Exceptions were in the youngest group, which had lower percentage working in four quarters and higher percentage in only two quarters;

Table 19—EMPLOYMENT OF CLAIMANTS—BY INDUSTRY GROUP, DURATION, AND SEX

Industry Group	Number of Claimants			Percent Having Employment In: One Quarter			Two Quarters			Three Quarters			Four Quarters			Average Employed Quarters
	All	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	
Mining	403	400	3	6.0	6.0	.....	17.9	18.0	.....	19.6	19.7	.....	56.6	56.3	100.0	3.3
Contract Constr.	598	590	8	16.2	16.1	25.0	24.1	24.1	25.0	22.1	22.2	12.5	37.6	37.6	38.3	2.7
Manufacturing	707	640	67	16.1	16.1	16.4	22.9	21.4	37.3	19.9	20.2	17.9	41.0	42.3	28.4	2.9
Trans., Com., Util.	101	80	21	6.9	7.5	4.8	20.8	25.0	4.8	13.9	12.5	19.0	58.4	55.0	71.4	3.2
Wholesale, Retail Tr.	804	346	458	11.4	13.3	10.0	24.5	21.4	26.9	25.2	20.8	28.6	38.8	44.5	34.5	2.9
Fin., Ins., Real Estate	22	9	13	4.5	11.1	.....	18.2	22.2	15.4	40.9	33.3	46.2	36.4	33.3	38.5	3.1
Service, Miscellaneous	262	111	151	11.1	14.4	8.6	24.8	27.0	23.2	22.1	25.2	19.9	41.9	33.3	48.3	2.9
Total	2,897	2,176	721	12.6	13.4	10.1	23.0	21.9	26.1	22.0	20.8	25.5	42.4	43.9	38.3	2.9

Table 20—EMPLOYMENT OF CLAIMANTS—BY AGE, DURATION, AND SEX

Age In Years	Number of Claimants			Percent Having Employment In: One Quarter			Two Quarters			Three Quarters			Four Quarters		
	All	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female
Under 20	145	106	39	13.8	17.9	2.5	35.2	36.8	30.8	22.8	20.8	28.2	28.2	24.5	38.5
20 - 29	486	311	175	14.6	18.3	8.0	24.3	23.5	25.7	26.5	24.8	29.7	34.6	33.4	36.6
30 - 39	595	424	171	11.8	12.7	9.3	22.9	21.2	26.9	20.5	18.9	24.6	44.8	47.2	39.2
40 - 49	599	465	134	12.5	12.3	13.4	23.7	23.2	25.4	19.4	18.3	23.1	44.4	46.2	38.1
50 - 59	519	412	107	10.6	10.4	11.2	22.3	20.4	29.9	21.0	19.7	26.2	46.1	49.5	32.7
60 - 69	330	285	45	12.4	13.3	6.7	17.0	16.1	22.2	22.1	21.8	24.4	48.5	48.8	46.7
70 and over	36	34	2	16.7	17.6	.....	19.4	20.6	.....	16.7	17.6	.....	47.2	44.1	100.0
Unknown	187	139	48	13.9	12.2	18.8	20.9	21.6	18.8	25.7	28.1	18.8	39.5	38.1	43.6
Total	2,897	2,176	721	12.6	13.4	10.1	23.0	21.9	26.1	22.0	20.8	25.5	42.4	43.9	38.3

and in the 60 to 69 year-olds, who exactly reversed that distribution. The two groups under 30 years of age fell below the average of those working in all four quarters, while the older groups were uniformly above average in this respect.

Frequency of Job Changing

Extent of shifting from one to another employer during a year is reflected in Table 21. Nearly two-thirds of the claimants in the sample were found to have worked for only one employer during the base period of the claim. Less than one-fourth of the number had been on payrolls of two employers, while the number who had worked for three, four, five or more employers diminished progressively and constituted in all less than one-eighth of the number studied. The average number of employers per claimant was 1.5.

Study of the major industry groups, as given in Table 22, provides further light upon the job-changing habits of the claimants in the study. Heaviest percentages of claimants who had worked for only one employer were found in the mining, service, and transportation groups, while contract construction, as might be expected, was at the other extreme, probably because of inherent transitory nature of construction jobs.

Table 21

CLAIMANT JOB CHANGING—BY NUMBER OF EMPLOYERS

Base Period Employers	Claimants		B. P. Quarters Employed (Percent)			
	Number	Percent	One	Two	Three	Four
1	1,900	65.6	16.8	27.2	15.5	40.5
2	667	23.0	5.4	16.9	32.7	45.0
3	216	7.5	2.3	12.5	38.0	47.2
4	72	2.5	4.2	6.9	33.3	55.6
5 or more	42	1.4	2.4	7.1	40.5	50.0
Total	2,897	100.00	12.6	23.0	22.0	42.5
Average Number of Employers		1.5	1.2	1.3	1.8	1.6

Construction was second high in the percentage of its employees who had worked for five or more employers, another symptom of short-period jobs, but its record here was surpassed by the transportation group. A relatively even distribution among

the major industries is reflected in the percentage of claimants with two different employers. Mining and transportation were low in this category.

Table 22

CLAIMANT JOB CHANGING—BY EMPLOYING INDUSTRY

Industry	Number of Claimants	Average Number of Employers	Number Base Period Employers (Percent) 1	2	3	4	5 or more
Mining	403	1.3	78.1	14.9	5.5	0.5	1.0
Contract Constr.	598	1.8	48.7	33.4	10.4	4.2	3.3
Manufacturing	707	1.5	65.9	22.3	8.1	2.7	1.0
Trans., Com., Util.	101	1.5	71.4	15.9	4.9	3.9	3.9
Whole, Retail Trade	804	1.5	68.7	21.8	6.3	2.4	0.8
Fin., Ins., Real Estate	22	1.6	59.1	22.7	18.2	----	----
Service, Miscellaneous	262	1.3	72.9	20.2	5.7	1.1	----
Total	2,897	1.5	65.6	23.0	7.5	2.5	1.4

Seasonal influences are evident in that industry groups which gave steady, year-round employment reflected less job-changing than those with high peaks and low valleys of employment.

Occupational Classification

Some indication of the conventional distribution of claimants as to occupational classification by major groups is afforded in Table 23 and 24. Unskilled and service workers comprise more than fifty percent of the total claimants. Skilled persons, semi-skilled, and clerical and sales follow in that order; agricultural workers and then the professional and managerial group are the least numerous.

The agricultural figure reflects to some degree the inter-flow of workers in farming and industrial occupations, since agricultural employment itself does not qualify for unemployment insurance benefits. It is significant that even this minor segment of the claims load comes out of agriculture as its most recent employment.

Table 23—OCCUPATION OF CLAIMANTS—BY AGE

Occupation	Number	Percent By Sex			Age Groups, By Years (Percent)							
		All	Male	Female	Under 20	20-29	30-39	40-49	50-59	60-69	Over 70	Unknown
Professional	66	2.3	2.0	3.2	4.5	19.7	21.2	31.8	13.6	4.6	.....	4.6
Clerical and Sales	220	7.6	2.5	23.0	7.7	30.0	22.3	13.6	10.9	7.7	1.4	6.4
Service	813	28.0	25.6	35.4	6.5	14.7	18.6	19.6	17.8	15.1	1.2	6.5
Agricultural	72	2.5	2.9	1.2	5.5	16.7	23.6	16.7	19.4	11.1	2.8	4.2
Skilled	526	18.2	23.0	3.6	4.0	7.0	20.9	24.7	24.3	14.5	1.3	6.9
Semi-Skilled	337	11.6	14.7	2.5	4.2	19.9	25.5	22.9	15.4	6.8	.3	5.0
Unskilled	863	29.8	29.4	31.1	6.0	19.9	19.5	19.7	17.0	9.3	1.5	7.1
Total	2,897	100.0	100.0	100.0	5.0	16.8	20.5	20.7	17.9	11.4	1.2	6.5

Table 24—OCCUPATION OF CLAIMANTS—BY SEX AND AGE

Occupation	Number		Age Groups, By Years (Percent)															
			Under 20		20-29		30-39		40-49		50-59		60-69		Over 70		Unknown	
	Male	Female	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Professional	43	23	6.9	.....	13.9	30.4	16.3	30.4	32.6	30.4	18.6	4.4	4.7	4.4	....	.....	7.0	.....
Clerical, Sales	54	166	3.7	9.0	20.4	33.1	9.2	26.6	13.0	13.9	22.2	7.2	18.5	4.2	5:6	.....	7.4	6.0
Service	558	255	7.2	5.1	13.3	17.6	16.5	23.1	18.8	21.2	17.2	19.2	18.8	7.1	1.8	.....	6.4	6.7
Agricultural	63	9	6.3	.....	19.0	.....	22.2	33.3	15.9	22.2	15.9	44.5	12.7	.....	3.2	.....	4.8	.....
Skilled	500	26	0.4	.....	7.2	3.8	21.2	15.4	24.8	23.1	24.4	23.1	14.2	19.2	1.0	7.7	6.8	7.7
Semi-Skilled	319	18	4.4	.....	19.4	27.8	24.5	44.4	24.1	.....	15.1	22.2	6.9	5.6	.3	.....	5.3	.....
Unskilled	639	224	6.4	4.9	17,2	27.7	19.1	20.5	20.0	18.8	18.2	13.8	10.5	5.8	2.0	.....	6.6	8.5
Total	2,176	721	4.9	5.4	14.3	24.3	19.5	23.7	21.3	18.6	18.9	14,8	13.1	6.2	1.6	0.3	6.4	6.7

One-fourth of the claimants in the sample were women; in only one occupational classification, clerical and sales, are there more women than men among the claimants. In the skilled, semi-skilled and agricultural groups the women are an almost negligible minority, though in the over 70 age group the only women claimants came in the skilled occupational classifications.

Reason for Separation

Seasonal lay-offs in industries which habitually operate during a portion of a year and reduce their crews at the close of such period or periods are potent in funneling claimants into benefit status. Seventy percent of the workers whose claims were studied in this sample were "laid off, lack of work." This reason for their separation from employment was confirmed by the employer concerned.

Table 25

REASON FOR CLAIMANT SEPARATION—BY INDUSTRY

Industry	Number	Reason Given By Claimant (Percent)						
		Lack of Work	Other Lay-off	Dissatisfied	Change of Residence	Sickness	Labor Dispute	Other
Mining	403	56.6	10.4	4.5	1.7	13.4	0.5	12.9
Contract Constr.	598	81.8	7.9	1.0	0.8	2.0	0.3	6.2
Manufacturing	707	78.5	9.1	1.3	1.3	3.1	0.1	6.8
Trans., Com., Util	101	67.3	5.9	2.0	2.0	4.0	2.0	16.8
Whole, Retail Trade	804	65.0	9.8	1.9	3.4	5.7	4.1	10.1
Fin., Ins., Real Estate	22	40.9	13.6		4.5	9.1		31.9
Service Miscellaneous	262	62.2	9.5	4.2	2.3	7.6	0.4	13.7
Total	2,897	70.2	9.2	2.1	2.0	5.5	1.4	9.6

Contract construction and manufacturing ran the highest percentages in this group, a natural result of the highly seasonal nature of the building industry and of such portions of manufacturing as food processing, logging and lumbering, and holiday tree harvesting. Finance and mining employment reflected a much lower percentage of "lack of work" claimants. Transportation, trade, and service occupy a middle position, affected in a secondary fashion by primary layoffs.

Dissatisfaction with the job, change of residence, sickness, and labor dispute were given in relatively few instances as the reason for separation. The mining industry contributed the highest percentages in the dissatisfied and illness groups, finance and trade led in change of residence and trade was high in labor dispute separation.

Time Lag, Separation to Claim and Payment

The period of time elapsing between separation from work and filing of the initial claim for unemployment insurance is pictured in Table 26. Less than three percent of all the claimants started their insurance claim within the first week of idleness. More than half of the number delayed only one to four weeks before seeking benefits; nearly a fifth allowed five to nine weeks to elapse before initiating their claim; small percentages are shown in the longer periods, yet it is significant that one-twelfth of all claimants delayed 20 weeks or more before applying for unemployment insurance.

Table 26

PRE-CLAIM TIME LAG—BY INDUSTRY

		Weeks Unemployed Prior to Claim (Percent)					
Industry	Number	Less Than 1	1-4	5-9	10-14	15-19	20 or More
Mining	403	2.2	62.9	20.6	5.3	3.2	5.8
Contract Constr.	598	3.3	54.4	19.9	10.8	5.2	6.5
Manufacturing	707	2.9	47.8	26.2	10.6	6.8	6.7
Trans., Com., Util.	101	6.0	46.6	22.8	8.9	6.9	8.9
Wholesale, Retail Trade	804	3.1	57.3	10.6	9.5	7.0	12.6
Fin., Ins., Real Estate	22	9.1	59.0	9.1	4.6	4.6	17.6
Service, Miscellaneous	262	1.5	51.9	22.1	6.1	8.4	10.0
Total	2,897	2.8	54.3	19.2	9.0	6.1	8.6

Within the major industries the pattern of time lapses presents varying and conflicting aspects. Workers from the finance industry, though slight in number, had high percentage in prompt filing and also high percentage in the group waiting 20 or more weeks before instituting a claim. Mining was relatively low in both these extremes but high in the percentage first seeking benefits after one to four weeks of unemployment.

Manufacturing, transportation, and service workers deferred their filing until the second month of their unemployment in higher proportion than those from other industries. Contract construction, and manfacturing, rank highest in percentage of those with a time lag of ten to fourteen weeks.

In general the table reflects a lack of haste on the part of claimants to obtain insurance benefits under the program. It indicates in many instances that the separated worker is interested in his benefit potential as a last, rather than a first, source of income when separation occurs.

Time Lapse—Initial Claim to First Payment

Table 27 is a study to determine the time lapse during the first three steps after the first claim is presented. Those steps are the claimant's appearance to record: a first waiting week, a second waiting week, and the first compensable week.

Table 27

TIME LAPSE—INITIAL CLAIM TO FIRST PAYMENT

Number of Weeks Elapsed	Number of Claimants								
	Initial Claim to First Waiting Week			First to Second Waiting Week			Second Waiting Week to First Payment		
	All	Male	Female	All	Male	Female	All	Male	Female
1	2,280	1,675	605	2,328	1,706	622	2,167	1,583	584
2-4	65	50	15	65	57	8	155	122	33
5-8	19	16	3	10	8	2	30	24	6
9 or more	94	80	14	53	48	5	104	90	14
No payment							441	357	84
Total							2,897	2,176	721

Number of Weeks Elapsed	Percent of Claimants								
	All	Male	Female	All	Male	Female	All	Male	Female
1	78.7	57.7	20.9	80.5	58.9	21.5	74.8	54.6	20.2
2-4	2.2	1.7	.5	2.2	2.0	.3	5.4	4.2	1.1
5-8	.7	.6	.1	.3	.3	.1	1.0	.8	.2
9 or more	3.2	2.8	.5	1.8	1.6	.2	3.6	3.1	.5
No payment							15.2	12.3	2.9
Total							100.0	75.1	24.9

Nearly 80 percent of the claimants recorded their first waiting week just one week after the first claim was presented; slightly over 80 percent used only one week between the first and the second; while 75 percent took only one week between completion of required waiting time and filing of claim for first benefit check.

Better than three percent of all the claimants are shown to use up two to four weeks in each of the three steps analyzed; a small percentage uses from five to eight weeks in each step; another three percent uses nine weeks or more.

A significant number, amounting to fifteen percent of the total, obtain no benefit checks during their benefit year. These may be ascribed, principally, to re-employment with no recurring periods of unemployment.

Weekly Benefit Amount—By Sex and Qualifying Employment

The claimants were classified in the first section of Table 28 as to number qualifying for the weekly benefit amounts ranging from minimum of $7.00 to maximum af $20.00, and by sex, revealing that more than one-half had wage credits entitling them to the maximum figure; only minor percentages fell within the low brackets up to $18. More women than men were in the extremely low brackets and generally up to the $16 range. Beyond that the proportion shifted, with nearly two-thirds of the men and less than one-third of the women qualifying for $20 weekly benefits.

The second section relates the earnings in base period quarters, with respect to the number of quarters in which wages were earned rather than to the amount of wages, as a reflection of the constancy of employment of those claimants included in the study. No breakdown as to sex was available for this compilation.

The lower benefit brackets are heavily represented in the groups having employment in only one quarter. One-third of all claimants receiving $12 or less as a weekly benefit amount had wage earnings in only one quarter. Less than one fifth of those earning wages in two quarters were in the lower benefit brackets; one-eighth having earnings in three quarters; while less than 3 percent of those with earnings in four quarters appear in the low benefit amounts.

Eighty-five percent of those having earnings in four quarters qualified for the high benefit brackets, $18 to $20; approximately

Table 28—WEEKLY BENEFIT—BY SEX AND QUALIFLYING EMPLOYMENT OF CLAIMANT

Weekly Benefit Amount	Claimants		Male		Female		Percent Earning Wages in Qualifying Base Period (Quarters)			
	Number	Percent	Number	Percent*	Number	Percent*	1	2	3	4
$ 7	66	2.3	32	1.1	34	1.2	8.8	3.5	0.5	0.6
8	56	1.9	24	0.8	32	1.1	5.5	3.3	1.1	0.6
9	59	2.0	23	0.8	36	1.2	6.9	2.4	2.5	0.2
10	58	2.0	38	1.3	20	0.7	4.9	4.1	1.4	0.3
11	64	2.2	27	0.9	37	1.3	4.7	3.3	2.5	0.7
12	62	2.1	38	1.3	24	0.8	2.2	3.0	4.4	0.5
13	71	2.5	34	1.2	37	1.3	4.4	1.8	3.2	1.9
14	71	2.5	44	1.5	27	0.9	2.2	2.6	3.6	1.7
15	84	2.9	38	1.3	46	1.6	4.9	1.3	4.2	2.4
16	107	3.7	54	1.9	53	1.8	4.4	3.1	1.9	4.7
17	107	3.7	60	2.0	47	1.6	8.5	2.9	5.8	1.6
18	453	15.6	370	12.8	83	2.9	15.1	12.5	16.2	17.2
19	60	2.1	32	1.1	28	1.0	5.5	0.9	1.9	1.9
20	1,579	54.5	1,176	47.0	217	7.5	21.4	55.3	50.8	65.8
Total	2,897	100.0	2,176	75.1	721	24.9	100.0	100.0	100.0	100.0

* Percent of Total Number of Claimants.

69 percent of those having either three or two quarter employment were in those high benefit brackets; while employment in only one quarter gave those top benefits to only 42 percent.

The Montana formula is such that a claimant with earnings of $600 in a quarter qualifies for the maximum benefit of $20 per week. Above that sum earnings in other quarters do not affect potential benefits.

Number of Weeks Compensated

The average number of weeks compensated in a full benefit year for the claimants included in the study is presented in Table 29, together with the average weekly wage and the average benefit amount, all by major industrial groups. Another item covered shows the percentage of claimants, by industry, qualifying for the state's maximum weekly benefit amount of $20.

Claimants coming out of the transportation, construction and mining industries are found to have fewer weeks of qualified unemployment than the average, while service, finance, trade and manufacturing are above the average. The tendency of women to more extended duration of qualified unemployment is again manifest.

Table 29

WEEKS COMPENSATED, EARNINGS, AND AVERAGE BENEFIT—BY INDUSTRY

Industry	Number of Claimants			Average Weeks Compensated			Average Weekly Wage	Average Weekly Benefit
	All	Male	Female	All	Male	Female	1949	1949-1950
Mining	403	400	3	9.5	9.5	8.0	$65.90	$18.69
Contract Constr.	598	590	8	9.3	9.3	9.8	64.20	17.69
Manufacturing	707	640	67	10.4	10.3	11.6	59.00	17.71
Trans., Com., Util.	101	80	21	8.7	7.8	12.3	56.90	18.23
Wholesale, Retail Trade	804	346	458	11.0	9.9	11.8	47.70	15.64
Fin., Ins., Real Estate	22	9	13	11.5	9.2	13.0	48.50	18.27
Service, Miscellaneous	262	111	151	11.6	9.1	13.3	36.90	15.64
Total	2,897	2,176	721	10.3	9.5	12.1	$52.53	$17.31

Average wages during 1949 placed mining at the top, closely followed by contract construction and manufacturing, with other industries lagging at substantial intervals. Weekly benefit

amounts paid to claimants in the same industries afford sharp contrasts in the percentages to be obtained. Benefit rates in construction are less than 28 percent of the average weekly wage, ranging upward to above 40 percent in service. The average of benefit to wage is about one-third.

All industries show a relatively high percentage of their claimants obtaining the maximum benefit amount of $20 for each week of qualified unemployment. Mining again heads the list, with trade and service at the lower extreme.

Benefit Checks—By Number Drawn

Extent to which benefits are claimed and received by claimants, up to the legal limit of 18 in a benefit year, is revealed in Table 30. The 2,897 claimants in the sample were tabulated for the full benefit year established by their original filing for benefits, thus providing a complete digest of their entire series.

The 441 claimants who were found eligible for benefits but never reported a compensable week of unemployment and therefore never received a benefit check pursuant to that eligibility, constituted 15.2 percent of the total, or nearly one-sixth. A greater proportion of men than of women thus terminated their benefit series before it began.

Table 30

CLAIMANTS' BENEFIT CHECKS—BY NUMBER DRAWN

Number of Benefit Checks	All Claimants		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
None	441	15.2	357	16.4	84	11.7
1 to 3	303	10.5	254	11.7	49	6.8
4 to 6	283	9.8	231	10.6	52	7.3
7 to 9	297	10.2	239	11.0	58	8.0
10 to 12	287	9.9	229	10.5	58	8.0
13 to 15	281	9.7	229	10.5	52	7.2
16 to 18	1,005	34.7	637	29.3	368	51.0
Total	2,897	100.0	2,176	100.0	721	100.0

Classification was made at intervals of three in the benefit check series. In the first group, receiving one, two or three checks, slightly more than one-tenth of the claimants are found. About the same percentage prevailed for the succeeding groups, in-

cluding those receiving 13 to 15 checks. In the next group, however, the figures show a strong one-third of the claimants. This includes those who received the maximum benefit allotment of 18 checks.

Substantially more than one-half of the claimants received less than 13 of their possible 18 benefit checks. It therefore appears that the average insured worker who became unemployed, during the period studied, found it unnecessary, by reason of re-employment or otherwise, to claim the final one-third of the total number of benefits allowed. A smaller proportion of men than women claimants received the full number of benefit checks. More than half of the women obtained 16 or more benefits, less than 30 percent of the men.

VII
CLAIM EXHAUSTION

Employment experience of the 807 claimants in the sample who had obtained the maximum complement of 18 benefit checks during their benefit year was explored by means of supplementary questionnaires, to which 592 gave reply. Slightly more than one-fourth of all claimants in the sample were included in those 807 claim exhaustions. Male claimants made up 60.5 percent of the total and women 39.5 percent.

Compilations of data with respect to age, sex, industry in which wages were earned, marital status, number of dependents, weekly benefit amount, re-employment, length of time before new employment was obtained, and other labor status facts of the claimants in the group are presented in this chapter.

Patterns thus developed have application, not to the main body of unemployed persons who qualify for unemployment insurance, but specifically to those whose unemployment persists to an extent which results in their receiving the full series of benefit checks within the year. This constitutes, roughly, about one-third of the claimants who become actual recipients of at least one benefit check.

Approximately one-fourth of the claimant group in this study, a year after exhaustion of their benefit potential, were found to have withdrawn, at least temporarily, from the labor market. Causes of the withdrawal appear to have been: self-employment, change in domestic arrangements, advanced age, illness or disability, interruption for school attendance, a wide variety of personal reasons, and in a few cases merely the choice of the worker himself.

Benefit Payments Exhausted

During the eleven-year period 1940-1950 Montana's percentage of claimants exhausting their benefit claim potential after being found eligible and qualifying for a first benefit check was slightly higher than the average experience over the entire nation. Comparison with neighboring states having seasonal factors similar to Montana shows a more favorable picture. Table

31 gives a comparison of the proportion of claim exhaustions in the nation and in the state, and lists the number by years in Montana's claim-paying experience.

During the first two years of benefits, 1940 and 1941, the Montana number and percentage was higher than during any subsequent year, the nearest approach to the percentage level coming in 1946 on a much smaller numerical group. During most recent years the proportion has ranged very close to one-third, indicating that about two-thirds of the claimants who proceed as far as obtaining one benefit check drop out of claim status before they receive a final, or eighteenth, check. The national experience has not differed greatly from that of Montana in a percentage fashion, being higher in three years and lower in eight.

Table 31

CLAIMANTS EXHAUSTING BENEFIT PAYMENTS

Montana and the United States 1940-1950

Year	Exhaustions in Montana	Exhaustions as Percent of First Payments	
		Montana	United States
1940	12,521	55.3	50.6
1941	9,179	44.0	45.6
1942	3,563	29.0	34.9
1943	239	18.2	25.5
1944	233	28.7	20.2
1945	232	35.6	18.1
1946	2,847	38.4	38.7
1947	2,206	34.9	30.7
1948	2,565	33.4	27.5
1949	4,269	35.7	29.1
1950	6,649	32.1	30.5

War years reduced both the number and the percentage of claimants who obtained the full maximum number of benefit checks in Montana, building up again in 1945 and 1946 and reflecting a downward trend during the years of high employment which followed.

Age, Sex, Industry, Marital Status, Dependencies

A series of four separate tabulations provides potent facts concerning this group of benefit recipients. Table 32 shows the distribution by age brackets of the entire group and by sex. As a whole the older workers dominate the group, more than 70 percent being 40 years of age or over and a very slight percentage below 20 years.

Table 32

EXHAUSTED CLAIMS

By Age and Sex

Age In Years	Claims Exhausted Number	Percent	Male Number	Percent	Female Number	Percent
Under 20	7	1.2	4	0.7	3	0.5
20 - 29	60	10.1	20	3.4	40	6.7
30 - 39	96	16.2	38	6.4	58	9.8
40 - 49	122	20.6	70	11.8	52	8.8
50 - 59	144	24.4	95	16.0	49	8.3
60 - 69	131	22.1	105	17.7	26	4.4
70 and over	23	3.9	22	3.7	1	.2
Unknown	9	1.5	4	.7	5	.8
Total	592	100.0	358	60.5	234	39.5
Average Age	48.4		51.9		43.4	

Men in the group ranged perceptibly older than the women, and were most numerous in the 50 to 70 year age groups. Women were most numerous at age 30 to 39, and only one of more than seventy years of age exhausted the benefit potential. Distribution by sex in the entire group was approximately three men to two women, while the general division of all claimants is about three men to one woman, indicating that a higher percentage of women than of men remain unemployed to an extent that results in exhaustion of their claim.

Significantly, the average age in the exhausted claim group was greater than that established for the entire claimant group. Average in the general group is 43.5 years, while that of this special group is 48.4. This disparity may indicate the effect of the age factor in re-hiring of workers. Naturally those who are at or approaching age of retirement are less in demand at the hands of employers than are the younger and more physically able applicants.

Table 33

EXHAUSTED CLAIMS

By Industry of Last Employment

Industry	Number			Percent		
	All	Male	Female	All	Male	Female
Mining	76	75	1	12.8	98.7	1.3
Contract Constr.	90	88	2	15.2	97.8	2.2
Manufacturing	136	102	34	23.0	75.0	25.0
Trans., Com., Util.	20	17	3	3.4	85.0	15.0
Wholesale, Retail Trade	198	62	136	33.4	31.3	68.7
Fin., Ins., Real Estate	4	3	1	0.7	75.0	25.0
Service, Miscellaneous	68	11	57	11.3	16.4	85.1
Total	592	358	234	100.0	60.5	39.5

Wholesale and retail trade ranked at the top as the industry in which the largest number of claimants exhausting benefits were employed prior to claim status, followed by construction, mining and service. Considering male claimants alone the industry rankings change to manufacturing, construction, mining, and then trade; while women claimants are more numerous from trade, service and manufacturing. The numbers in this group are largely influenced by the numbers engaged in employment in the several industries, varied according to the seasonality or employment stability of the industry considered.

The marital status of claimants who exhausted their claims is shown in Table 34. More than one-fifth of them were single persons and more than three-fifths were married. Minor numbers were widowed, divorced or separated. Numerically there were

men among those widowed. More than half the men and nearly three-fourths of the women reported as married.

Table 34

EXHAUSTED CLAIMS

By Marital Status

Marital Status	All		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Single	126	21.3	110	87.3	16	12.7
Married	363	61.3	200	55.1	163	44.9
Widowed	51	8.5	18	35.3	33	64.7
Divorced	30	5.1	19	63.3	11	36.7
Separated	11	1.9	7	63.6	4	36.4
No Answer	11	1.9	4	36.4	7	63.6
Total	592	100.0	358	60.5	234	39.5

Closely related to the marital status of the claimants in the group is the number of dependents. Nearly seventy percent were without dependent children under the age of 18, the other thirty percent were nearly all in the class having one or two child dependents. Negligible percentages appear with a greater number of dependents; less than one percent, all men claimants, reported six or more.

Table 35

EXHAUSTED CLAIMS

By Number of Dependents

Dependents	All		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
1	72	12.2	39	54.2	33	45.8
2	52	8.8	31	59.6	21	40.4
3	25	4.2	17	68.0	8	32.0
4	14	2.4	9	64.3	5	35.7
5	10	1.7	8	80.0	2	20.0
6 or more	5	.8	5	100.0	-----	-----
None	414	69.9	249	60.1	165	39.9
Total	592	100.0	358	60.5	234	39.5

Weekly Benefit Amount and Labor Market Status

Claims exhausted followed the general claimant group fairly closely in the breakdown on basis of weekly benefit amount, except that the change from maximum $18 to $20 did not affect the exhausting group to the extent that it did the general category. About three-fifths of the exhausted claims are found in the maximum weekly benefit amount class, while percentages in the other benefit levels range from a low of 1.7 percent receiving $8 benefit checks to 8.7 percent receiving $19. The average weekly benefit amount for men ranged higher than that for women, a reflection of two factors—higher wage levels for men and fewer interruptions to employment.

Table 36

WEEKLY BENEFIT AMOUNT AND LABOR MARKET STATUS
(Exhaustions)

Weekly Benefit Amount	Exhausted Claims		Percent				
	Number	Percent	Re-Employed	Seeking Work	Not in Labor Force	Male	Female
$ 7	15	2.6	0.8	0.7	1.0	0.7	1.9
8	10	1.7	0.8	0.2	0.7	0.5	1.2
9	16	2.7	2.0	0.2	0.5	0.7	2.0
10	12	2.0	1.5	.....	0.5	0.3	1.7
11	15	2.5	1.0	1.0	0.5	0.5	2.0
12	12	2.1	0.8	0.7	0.5	0.2	1.9
13	21	3.5	2.5	0.3	0.7	0.8	2.7
14	18	3.0	2.0	.....	1.0	1.5	1.5
15	15	2.5	1.2	0.7	0.3	0.5	2.0
16	27	4.6	3.0	0.3	1.2	1.7	2.9
17	23	3.9	2.5	0.3	1.0	2.0	1.9
18	21	3.6	1.8	1.0	0.7	1.4	2.2
19	6	8.7	1.8	0.3	0.5	0.3	2.4
20	371	62.6	38.0	12.3	12.3	49.3	13.3
Total	592	100.0	60.5	18.1	21.4	60.4	39.6
Average Weekly Benefit Amount	$17.62		$17.63	$17.08	$17.92	$18.92	$15.63

In the matter of securing re-employment a similarly high percentage of the $20 a week class appeared to have met with success, though a surprising proportion of those still seeking work were also found to have been recipients of the $20 weekly benefit check. Exactly the same percentage in the $20 rank were withdrawn from the labor market. As to sex, there were fewer women than men, relatively, in the higher benefit bracket, but a higher proportion of women in nearly every benefit level below $20.

Employment Status After Claim Exhaustion

Approximately one-fifth of those who exhausted their claim potential reported that they had thereupon withdrawn from the labor market, some on a temporary basis and others for self-employment; on the other hand three-fifths of the group were re-employed. Less than one-fifth were seeking work but were not employed at time of reporting.

Table 37

EMPLOYMENT AFTER CLAIM EXHAUSTION

	By Sex			
	Number	Percent All	Male	Female
Re-Employed	**358**	**60.5**	**37.0**	**23.5**
Unemployed	**234**	**39.5**	**23.5**	**16.0**
Seeking Work	107	18.1	13.5	4.6
Not in Labor Force	127	21.4	10.0	11.4
Total	**592**	**100.0**	**60.5**	**39.5**

These figures are again shown in Table 38, with a further breakdown on the basis of the age of the applicant. Men between the ages of 40 and 60 comprised practically half of the men in the group who secured re-employment. As might be expected, the men who had withdrawn from the labor market were in the upper age brackets. The age of women who were out of the labor market, on the contrary, was decidedly lower, probably due to inclusion of young women before marriage and therefore in the lower age brackets.

Table 38—EMPLOYMENT AFTER CLAIM EXHAUSTION
By Age and Sex

Age In Years	Re-Employed				Seeking Work				Not in Labor Market			
	Number	Percent	Male (Percent)	Female (Percent)	Number	Percent	Male (Percent)	Female (Percent)	Number	Percent	Male (Percent)	Female (Percent)
Under 20	6	1.7	1.1	.6	1	0.9	-----	0.9	-----	-----	-----	-----
20 - 29	37	10.3	5.0	5.3	8	7.5	1.9	5.6	15	11.8	-----	11.8
30 - 39	67	18.7	8.9	9.8	17	15.9	5.6	10.3	12	9.4	-----	9.4
40 - 49	89	24.9	14.5	10.3	26	24.3	16.8	7.5	7	5.5	-----	5.5
50 - 59	87	24.3	15.1	9.2	31	28.9	29.0	-----	26	20.5	7.9	12.6
60 - 69	61	17.0	14.8	2.2	19	17.8	16.8	0.9	51	40.2	26.8	13.4
70 and over	2	0.6	.6	-----	5	4.7	4.7	-----	16	12.6	11.8	.8
Unknown	9	2.5	1.1	1.4	-----	-----	-----	-----	-----	-----	-----	-----
Total	358	100.00	61.2	38.8	107	100.0	74.8	25.2	127	100.0	46.5	53.5
Average Age	47.0		49.4	43.2	48.6		52.6	36.9	52.7		62.7	46.2

By industry, re-employment was shown to be more likely for those who had been in the finance industries, with a 100 percent showing. Wholesale and retail trade held the next position, followed by manufacturing and construction. The transportation and utility group had the lowest percentage in this respect.

Table 39

EMPLOYMENT AFTER CLAIM EXHAUSTION—BY INDUSTRY

Industry	Number	Labor Market Status (Percent) Re-Employed	Unemployed
Mining	76	55.3	44.7
Contract Constr.	90	58.9	41.1
Manufacturing	136	62.5	37.5
Trans., Com., Util.	20	40.0	60.0
Wholesale and Retail Trade	198	65.7	34.3
Fin., Ins., Real Estate	4	100.0	—
Service, Miscellaneous	68	53.7	46.3
Total	592	60.5	39.5

Length of Unemployment After Claim Exhaustion

Companion tables numbered 40 and 41 provide tabulation of the length of unemployment experienced by claimants who received the full complement of 18 benefit checks within their benefit year. Approximately twelve months had elapsed since expiration of the benefit year in each instance.

Nearly fifteen percent reported that they were re-employed within four weeks of the exhaustion of their benefit claim. A similar percentage secured employment in from five to twelve weeks after such exhaustion. Much smaller percentages were unemployed for from thirteen to twenty weeks following termination of their claim series.

The remaining 64 percent experienced a delay of 21 weeks or more in obtaining employment. This percentage must be understood to include the 21 percent who were no longer in the labor market as already developed in this chapter, and the 18 percent who were still unemployed and seeking work. It indicates, therefore, that about 25 percent of the group remained unemployed for more than twenty weeks but had obtained employment before the reply was made to the questionnaire.

Table 40—LENGTH OF UNEMPLOYMENT AFTER CLAIM EXHAUSTION
By Age and Idle Period

Weeks Unemployed	Exhausted Claims Number	Exhausted Claims Percent	Percent By Age Groups (In Years) Under 20	20-29	30-39	40-49	50-59	60-69	70 and Over	Unknown
0 - 4	85	14.4	.....	4.7	18.8	25.9	20.0	17.6	11.8	1.2
5 - 8	41	6.9	2.5	12.2	26.8	26.8	24.4	7.3	.....	....
9 - 12	43	7.3	2.3	16.3	13.9	32.7	20.9	13.9	.....	....
13 - 16	19	3.2	5.2	10.6	21.1	26.3	31.6	5.2	.....	....
17 - 20	24	4.0	4.2	4.2	20.9	29.1	8.3	33.3	.....	....
21 and over	380	64.2	0.8	10.8	14.2	16.6	26.3	25.8	3.4	2.1
Total and Average	592	100.0	1.2	10.1	16.2	20.6	24.3	22.1	3.9	1.6
Average Weeks	19.5		18.1	20.0	17.7	17.0	19.8	21.0	15.4	22.6

Table 41—LENGTH OF UNEMPLOYMENT AFTER CLAIM EXHAUSTION
By Sex, Age and Idle Period

Weeks Unemployed	Number		Percent in Age Group (in years)															
			Under 20		20-29		30-39		40-49		50-59		60-69		70 & Over		Unknown	
	Male	Female	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0 - 4	62	23	.....	.....	.2	.5	1.0	1.7	2.7	1.0	2.4	.5	2.5	.....	1.7	.....	.....	.2
5 - 8	28	13	.2	.....	.2	.7	1.2	.7	1.5	.3	1.3	.3	.3	.2	.....	.....	.....	.....
9 - 12	32	11	.2	.....	.8	.3	.8	.2	1.5	.8	1.2	.3	.8	.2	.....	.....	.....	.....
13 - 16	13	6	.2	.....	.2	.2	.3	.3	.5	.3	.8	.2	.2	.....	.....	.....	.....	.....
17 - 20	13	11	.2	.....	.....	.2	.3	.5	.3	.8	.3	.....	1.0	.3	.....	.....	.....	.....
21 and over	210	170	.....	.5	2.0	4.9	2.7	6.4	5.2	5.4	10.0	6.9	12.8	3.7	2.0	.2	.7	.7
Total	358	234	.7	.5	3.4	6.7	6.4	9.8	11.8	8.8	16.0	8.3	17.7	4.4	3.7	.2	.7	.8
Average Weeks	17.8	20.5	13.0	25.0	19.0	20.5	15.5	19.0	15.3	19.5	18.6	22.1	20.4	23.3	15.0	25.0	25.0	20.6

These percentages apply to a sample within a sample, since the 807 in this claims exhaustion study are a part of the 2,897 over-all sample. The other 2,090 did not exhaust their claim series, hence the presumption is that they secured employment or withdrew from the labor market prior to expiration of their benefit year.

The replies tabulated with respect to the age, and the sex, of the claimant tend to confirm employment resistance which confronts the older persons in the working force, and the women in particular, since those brackets from 40 to 70 years of age carry the bulk of these claims exhausting persons and the women are found to contribute comparatively high percentages to the picture. There were but few claimants under 20 years of age in the group, but of that limited number all the men secured re-employment within 20 weeks of the expiration of their benefit period and all the women were unemployed 21 weeks or more.

Women outnumbered men in the ages 20 to 40, but fell rapidly behind in the higher age groups. Average number of weeks of unemployment reported was higher among the women claimants than among the men.

VIII

THE MONTANA ECONOMY [1]

Montana is the third largest state in the union, exceeded in size only by Texas and California. Its total area comprises 147,148 square miles, or approximately 94 million acres. Within this territory live about 591,000 people or an average of only four persons per square mile.

Western Montana, comprising roughly one-third of the state, is a mountainous area, heavily forested, with vast mineral resources and fertile mountain valleys. Its industries are based upon its lumber, mineral, and agricultural resources. Similarities in geographic characteristics, resources, and economic activity, as well as a tradition of westward movement, have brought about close ties with the states lying to the west and have contributed to the integration of western Montana as a part of the Pacific Northwest.

To the east of the Continental Divide lies the greater portion of the state, approximately two-thirds of the total area, which is a part of the Great Plains region. Agriculture is the chief economic activity in eastern Montana, although it is generally less diversified than in the western part of the state. Smaller and less dependable water supplies have resulted in a greater dependence upon non-irrigated farming and the production of wheat and cattle. Eastern Montana has extensive lignite and sub-bituminous coal beds, largely undeveloped, and oil and natural gas fields. It boasts a growing oil refining business.

Montana is primarily a producer of foodstuffs and raw materials, and its population still is predominantly rural. Only 43.7 percent of its people were living in urban areas (cities and towns of more than 2,500 population) in 1950, as compared to nearly 64 percent for the nation. In 1940 nearly 40 percent of the employed labor force was engaged in the primary industries, agriculture and mining, in contrast to approximately 21 percent in the entire country. Conversely, Montana had about 12 percent employed in the secondary industries, manufacturing and

[1] **Reference is made to Part One, The Economy of Montana, for statistical data supporting the material in this chapter.**

construction, while the country as a whole had 28 percent. In Montana 47 percent and in the United States nearly 50 percent of the employed labor force was in the tertiary industries, including trade, service, transportation, communication, other utilities, finance, and government in 1940.

Agriculture is the principal source of income in Montana, and is much more volatile than in the nation as a whole, ranging from 15.1 percent to 35.0 percent of total income payments since 1929. The fluctuations in agricultural income and the heavy dependence upon agriculture are salient features of the Montana economy and a principal cause of economic instability.

From 1929 through 1941 per capita income in Montana was below that of the United States for every year except 1940. Since 1942, however, Montana's per capita income has exceeded the national average, and in 1948 ranked fifth among all the states, due largely to the great increase in agricultural prosperity and its influence upon the rest of the state's economy. The 1950 per capita income was estimated at $1,605 for Montana, about 12 percent higher than the estimated $1,436 for the United States; Montana ranked tenth among the states.

In spite of the fact that Montana's economy differs greatly from that of the country as a whole, business cycle fluctuations in the state bear a marked resemblance to those of the nation. This similarity is in large part a reflection of the interdependence of the national and state economies. Those rather small variations which have occurred are in large part attributable to the influence of agriculture and agricultural income, which during the drought of the thirties added to depressed conditions and in later prosperous years was a major factor in the increase in business activity.

Seasonally, Montana tends to differ from the United States both in timing and in amplitude of fluctuations. Here again the influence of agriculture is evident. For example, bank debits and carloadings reach their peak in October as agricultural products are marketed, and general store sales generally reflect the pattern of farm purchasing.

Population

Montana's population enjoyed spectacular gains in the latter part of the 19th and early part of the 20th centuries. After 1920, however, while most other western states continued their rapid rate of growth, Montana failed to do much more than maintain

its 1920 numbers. In the 30-year period from 1920 to 1950, the total increase in population for Montana was 7.7 percent. The total national increase during this period was 42.6 percent. Between the 1920 and 1930 censuses the population of Montana declined 2.1 percent, while the United States population gained 16.1 percent. Since 1930, Montana has enjoyed small increases in population, 4.1 percent between 1930 and 1940 and 5.6 percent between 1940 and 1950.

Migration has been one of the important factors determining the trend of population in Montana. The rate of population growth below the national average is explained in large part by out-migration, which was extensive during the twenties and declined during 1933, 1934, and 1935. It increased during the more prosperous years which followed and was intensified again during World War II as Montanans were attracted to war industries in other states. Beginning in 1945, Montana began to gain back the population which it had lost during the war, and between 1945 and 1950, 129,000 persons were added to Montana's population to give the state a net gain of 5.6 percent for the decade.

The 1950 Census gives Montana a total population of 591,024. Of this total, 43.7 percent live in urban areas[1] while 56.3 percent are classified as rural residents. Between 1920 and 1950 urban population has increased 50.0 percent, while rural population has declined 11.6 percent.

Labor Force and Employment

The labor force includes all persons with jobs, including the self-employed, and all those available for work and looking for jobs. An estimate of the labor force in the state in April 1950 places the figure at 246,400.

Employment in Montana is characterized by extreme seasonal fluctuations, due to the rather severe winters which drastically curtail such activities as lumbering and construction and to the nature of other industries, such as agriculture, trade, and food processing. A large part of the burden placed upon unemployment insurance funds originates in the recurring seasonal pattern of unemployment.

All of the increase in employment since 1939 has taken place in the nonagricultural industries. In 1950, employees in nonagricultural establishments averaged 147,100, representing a total

[1] Cities and towns of over 2,500 population.

gain of 45,300 or 44.5 percent since 1939, the same rate of increase which took place nationally.

From the standpoint of the unemployment compensation program, employment and unemployment in the covered industries are of the greatest significance. That is, only those unemployed workers in covered industries who have established sufficient wage credits and are otherwise qualified are eligible for the insurance benefits. The proportion of employment in covered industries has increased in relation to the labor force and to total employment since 1940, accounting in 1950 for 40.9 percent of the estimated labor force and 42.9 percent of the total estimated employment, compared to 32.8 and 37.8 percent respectively in 1940. In general, covered employment closely follows the pattern of nonagricultural employment, although the fluctuations, both seasonal and cyclical, have been more pronounced.

Agriculture

In terms of income and employment, agriculture is one of the most important segments of Montana's economy. During the past twenty years, cash receipts from farm marketings in Montana have varied from $47 million in 1932 to $417 million[1] in 1948.

While following the national pattern, farm marketings have tended toward greater fluctuations, falling lower in times of depression and rising higher in years of general agricultural prosperity. Fluctuations in real farm income, of course, have been much smaller because of price changes. Since 1940, however, Montana farmers and ranchers have consistently been in a better position than the average nationally, and this has put the state in a more favorable position as to total income.

Montana agriculture is based upon the production of wheat and cattle. In 1949 and 1950, over 70 percent of total cash receipts came from the sale of these two commodities, 35.7 and 41.2 percent from wheat and 34.5 and 31.4 percent from cattle. Scanty and variable annual rainfall, particularly in the plains area, adds a degree of uncertainty to wheat production in the state. In recent years rainfall has been adequate and farming methods have improved, but a crop failure is always within the realm of possibility, with its resulting decline in farm income.

Montana is also an important sheep-producing state, although in 1950 cash receipts from the sale of sheep, lambs, and wool

[1] Including government payments.

amounted to only 5.7 percent of total receipts. Other important Montana agricultural products are barley, sugar beets, hay, alfalfa seed, potatoes, flax seed, oats, beans, mustard seed, hogs, and dairy and poultry products.

Although agricultural employment is not covered by unemployment insurance, it is of importance in any study of employment in the state because of the number of workers involved, the income derived, the frequent shifting of workers from farming to industry and reverse, and the possible effects of any change in employment opportunities in agriculture on covered employment.

Total agricultural employment, including farm operators and hired workers, is estimated to have declined about 11.2 percent between April 1940 and April 1950. In April 1940, agricultural workers numbered 59,800, accounting for 26.6 percent of the total labor force and 32.2 percent of total employment; by 1950, their numbers had declined to an estimated 53,100 or 21.6 percent of the labor force and 23.1 percent of total employment. Of this total 42,300 were family workers, including self-employed farm operators and other members of farm families, and 10,800 were hired workers.

The decline in agricultural employment in Montana can be attributed in large part to the increased mechanization which took place during the forties and greatly reduced the manpower required for the production and harvesting of crops. The growth in the average size of operating unit and the resultant smaller number of farms and ranches in the state were also contributing factors, particularly in the number of family workers.

Agricultural labor, so far as hired workers are concerned, is highly seasonal. Many of the seasonal agricultural workers come into Montana from other states, particularly to the south, or from Mexico and leave as soon as their work is completed.

With the prospect of continued good prices for their products, Montana's farmers seem to face an extended period of prosperity, barring the recurrence of a series of drought years such as those in the thirties. Agricultural employment probably will not continue to decline as it has during the past decade. It is unlikely that the number of hired workers can be reduced much further, and the decline in the number of farm operators is expected to slow down considerably in the future.

The Mining Industry

Mining and related activities constitute one of the leading sources of income and employment in Montana. Principal minerals produced[1] are copper, zinc, coal, silver, lead, manganese, and gold. The mining industry is concentrated in a few areas in the state. Most of the mining is in the Butte district, and the bulk of the processing takes place at Anaconda, Great Falls, and East Helena. A decline or expansion of mining activities is a matter of primary concern in these cities.

The economic significance of mining employment is further fortified by the fact that earnings are relatively high. While the volume of employment in the mining industry in 1950 constituted 12.9 percent of total covered employment, total wages paid were 15.6 percent of the total wages of all covered workers.

In metal mining and smelting and refining during fiscal years 1943 to 1950 unemployment benefits averaged only 0.36 percent of taxable wages. This is one-half of the ratio of 0.72 for all covered industries. The ratio was smaller than in all industries for each fiscal year except 1945-1946. Using the same measure, nonmetallic mining was less stable than metal mining and smelting and refining combined, but somewhat more stable than all covered industries. Coal mining was less stable than all industries, with benefits averaging 0.94 percent of taxable wages. However, since 87 percent of the taxable wages in the four categories was in metal mining and smelting and refining, it may be concluded that mining employment as a whole has been relatively stable. It has also displayed comparatively little seasonal variation.

It appears that the volume of production and employment in mining and related activities in Montana will expand to some extent over the next decade. Furthermore, there are developments which will make Montana's mining industry more stable. For example, the Greater Butte Project to mine low grade ore is expected to reduce the cost of copper production and thus make it less sensitive to price declines. Some of the new processing industries such as the phosphate industry may be less sensitive to depressions and thus contribute to economic stability. For at least the immediate future the demands of the rearmament program will assure a stable output for Montana's strategic minerals.

[1] Exclusive of petroleum and petroleum products, which are covered in the following section.

The Petroleum Industry

The oil industry is relatively new to the state of Montana, dating only from the twenties. Employmentwise, it is of less importance than many others, with covered production and refining employment together amounting to only 2.2 percent of total covered employment in Montana in 1950. Other employment created by the production and refining of petroleum, such as that in pipeline transportation, bulk tank stations, and filling stations, would, of course, greatly increase the total employment attributable to the industry.

In 1949, the total value of petroleum and natural gas produced amounted to over $25 million. The value added to products in Montana refineries in 1947 amounted to $7,855,000 or 8.5 percent of value added by all manufacturing in the state.

Petroleum production in Montana has increased substantially during the last decade, although it still amounts to only about 0.5 percent of the United States total. The decline in oil production between 1948 and 1950 was largely the result of the failure to find any additional large reserves in the state, making it unwise from a conservation standpoint to continue production at the 1948 level. Oil men and geologists, however, consider the prospects good for the discovery of additional oil in the state. A strike in the Williston basin near Richey in the summer of 1951 intensified interest in the search for new sources of oil.

Most of the oil produced in Montana is refined in the state. In 1950, 73.5 percent of the total produced and carried over in storage from 1949 was refined in Montana, 12.2 percent was shipped to other states and Canada, and the remainder was stored, used for fuel, or lost. Oil refining in Montana has grown more rapidly than petroleum production, due to the great increase in the amount of imported oil, mostly from Wyoming, refined in the state. Billings is the center of the state's oil refining industry, and other refineries are located in the northern part of the state, near the Cut Bank and Kevin-Sunburst fields.

Covered employment in the petroleum industry is small, seldom averaging more than 2,200 workers per year, or in recent years about 1.5 percent of total nonagricultural and 2.2 percent of total covered employment. The peak was reached in 1944 and a decline has occurred since that time. Seasonal fluctuations in employment in the petroleum industry are very small.

Wages paid in the petroleum industry are substantially higher than in most other industries in Montana. In 1950, the

2.2 percent of total covered workers in the petroleum industry received $8.3 million or 2.8 percent of total covered wages paid in the state.

Unemployment compensation payments to workers in the industry have been small, as indicated by the ratios of benefit payments to taxable wages. The refining branch of the industry was little affected by the recession which took place in late 1949 and 1950.

The present emergency has greatly increased the demands upon the oil industry. However, any large scale expansion of production of petroleum in Montana is impractical until such time as new reserves are discovered in the state. If reserves in the Williston basin, or in other potential oil areas, prove sizeable and meet the other requirements necessary, increased production and employment will result.

Contract Construction

The contract construction industry in Montana is of major importance because of the number of workers employed and because of its extreme seasonality which creates regular unemployment problems. In addition, the construction industry is strongly influenced by changes in the business cycle.

Data on the value of all new construction in the state are available only through 1947, when it amounted to $76.1 million, or 29.3 percent above 1939. Since 1947, it has increased considerably; in 1950, value of new public construction alone amounted to $75.6 million.

Employment in all construction work amounted to 10,500 in 1950 or 10.4 percent of total covered employment. This represented an increase of 4,800 workers or 84.2 percent over 1939. Contract construction is the most seasonal of any group of covered industries in Montana, with weather as the chief determinant.

Wage rates paid in the construction industry are well above the average. In 1950, total wages paid to covered construction workers amounted to 13.1 percent of all covered wages paid, while employment in construction accounted for only 10.4 percent of total covered employment.

The ratio of unemployment insurance payments to taxable wages in contract construction during the fiscal years 1943-1950 was considerably higher than that of any other covered industry group. The extreme seasonality of the construction industry has contributed to the high rate of benefits paid.

The outlook for construction activity and employment is dependent to a high degree upon government regulations as a result of the war emergency. Under present conditions, construction is likely to continue at fairly high levels. If, however, strict controls should be enacted curtailing private enterprises or if essential material shortages develop, employment in construction would decline rapidly as it did during World War II.

The Hungry Horse and Canyon Ferry projects will be completed within the next few years and unless other large-scale projects appear in the meantime, the demand for workers in general construction will decline substantially. Many of these workers will probably move on to similar projects in other states; others will have to be absorbed in other jobs in Montana. In any event, the completion of the projects is likely to place a temporary burden upon the unemployment compensation fund.

Manufacturing

Montana is not an industrialized state and manufacturing is less important than in the nation as a whole. In 1947, value added by manufacture in Montana amounted to $92,258,000 or only 0.1 percent of the United States total. In the United States, 33.7 percent of all nonagricultural workers were employed in manufacturing industries in 1950 compared to 12.3 percent in Montana.

The major manufacturing industries in the state are engaged in the processing of raw materials from farms, forests, and mines. Individual establishments are small, with only 28 of a total of 652 plants employing over 100 workers. Food and lumber manufacturing and the smelting and refining of nonferrous metals and petroleum employ about four-fifths of all workers in manufacturing.[1]

Between 1939 and 1950, employment in all manufacturing in Montana increased 52.1 percent, or at a rate slightly higher than either nonagricultural or covered employment. Because manufacturing was of less importance in Montana during the war, the state escaped most of the readjustment problems which some areas faced as defense plants were closed. Manufacturing employment in Montana grew to a new high in 1946, while national employment in those industries declined.

[1] The food products and lumber industries are discussed individually in following pages. The smelting and refining of nonferrous metals and petroleum refining are included in the mining and petroleum industry sections.

Employment in manufacturing in Montana is quite seasonal, largely because of the importance of the food products and lumber industries.[1]

Average wage rates paid to covered workers in manufacturing industries are well above the average for all industries, but are lower than those paid to mining and construction workers.

Prospects for increased manufacturing activity in Montana seem brighter than at any time in its history. The completion of Hungry Horse Dam in 1953 will make large quantities of cheap power available to industry and make possible fuller utilization of the state's resources. The establishment of an elemental phosphorus plant at Silver Bow provides an example of the locational pull of Montana's cheap power and mineral deposits. Plans for an aluminum plant near Kalispell also emphasize the importance of power in the future industrial development of the state.

Food and Kindred Products

The food and kindred products industry makes up an important segment of manufacturing in Montana, although with the exception of sugar and flour most of the products are produced in small plants for local consumption.

Leading food industry from the standpoint of value added and employment is the beet sugar industry. Five factories are located in Montana, at Billings, Chinook, Missoula, Hardin, and Sidney. The state's flour and feed mills, dependent upon the wheat and livestock industries, make up the second ranking food manufacturing activity. Other food products industries in the state, most of which are dependent upon local markets, include breweries and soft drink establishments, meat packing plants, dairy processing plants, and several small fruit and vegetable canneries.

Wage rates paid in the food industries are approximately equal to the average wage in Montana. Total wages paid to covered workers in food processing in 1950 amounted to $12.6 million, or 4.3 percent of total covered wages; employment also amounted to 4.3 percent of the total.

With the exception of lumbering, the food and kindred products industry has the highest benefit payment record in the

[1] The lumber industry is classified in federal government employment data as a manufacturing industry. Other classifications frequently include that segment of the industry engaged in logging as a primary industry, along with agriculture and mining.

manufacturing group. The relatively high ratio of benefit payments to taxable wages is due largely to the seasonality of the sugar and fruit and vegetable processing plants.

There is little reason to anticipate any sizeable increase in production or employment in the food industries during the next decade. Except for sugar factories and flour mills, production in most of Montana's food plants, such as creameries and bakeries, is in response to local demand, which will probably not expand appreciably. As new irrigation projects are completed, additional acreage will be devoted to sugar beets. This may, however, only serve to offset the decline in acreage which has been taking place and result in little new production or employment in the sugar industry.

Lumber and Wood Products Industries

Montana's forests, covering one-fourth its land area, represent one of the state's greatest assets. In addition to the recreational attraction which the timber areas represent for tourists, during the past decade the forest products industries have become one of the leading manufacturing activities in Montana. In 1947, value added by manufacturing in lumber and lumber product industries amounted to $22,053,000 or 23.9 percent of the value added by all manufacturing industries in the state, compared to only 10.9 percent in 1939.

Montana ranks second among the eight mountain states in volume of standing saw timber and fifth in the nation. Three-fourths of the commercial saw timber is located in the mountainous western third of the state. Ninety-nine percent of Montana's timber volume is in softwoods. Three species: ponderosa pine, Douglas fir, and western larch, account for almost the entire output. Other principal species are Engelmann spruce and lodgepole pine.

The number of active sawmills in Montana has more than tripled between 1931 and 1948. The increase has come in the number of small and medium-sized mills cutting less than 10 million board feet per year. In 1931, 134 such mills were operating in the state; in 1948 there were 429, of which 342 cut less than one million board feet each. The number of large mills, cutting over 10 million board feet per mill per year, has varied from three to five since 1931. At present, four mills, all located in western Montana—at Bonner, Columbia Falls, Kalispell, and Libby—are producing at the rate of 10 million feet or more per

year. Changing market conditions are apt to affect the larger mills less severely than the smaller ones because of their ability to provide a wider range of products of a more finished nature.

Besides lumber, products of Montana's forests include pulpwood logs and bolts for shipment to pulp mills in the Middle West, poles and piling posts, sawed cross ties, mine timbers, shingles, lath, fuelwood, and Christmas trees; all of these are of only minor importance, however, in comparison with the production of lumber.

Covered employment in all lumber and lumber products industries in Montana has doubled since 1939 and since 1946 has accounted for from 5.0 to 6.2 percent of total covered employment. The industry is the largest employer in the manufacturing group, with 25.9 to 31.1 percent of manufacturing employment during the postwar years.

Lumber is one of the most seasonal industries in the state. Logging operations are handicapped by winter snows and by the thaws and rains. Employment in the smaller mills is especially seasonal. Most of the smaller mills cease operation entirely during the winter and spring when logging operations cease, while the larger mills accumulate a supply of logs in the fall and operate fairly steadily throughout the year.

There is much shifting of workers between lumber and agriculture and other seasonal activities carried on in rural areas. Many combine the operation of small farms with work in forest industries. Some workers move within the industry, transferring from one place of employment to another. This is particularly true of independent contractors in logging.

Wages paid to lumber workers are higher than the average wage paid to all covered employees but are somewhat lower than the average earned by all manufacturing workers. In 1950, covered employees in lumber manufacturing earned $17.4 million or 6.0 percent of all wages paid to covered workers in Montana.

Because of its seasonality, employees in the lumber industry draw rather heavily on unemployment insurance. During the fiscal years from 1942-1943 to 1949-1950, benefit payments amounted to 1.69 percent of taxable wages, highest ratio of any covered industry. Because of the effort made by the industry to operate on a year-round basis during World War II, payments were very low during those years.

Despite the vastness of its resources, Montana is not a leading producer of lumber, ranking 18th in the nation in 1947. The lack of large markets and construction centers within economical shipping distances prevents full utilization of these resources. Production of lumber during the next few years will be at least partly dependent upon defense requirements. As yet, however, construction has not been severely curtailed and as long as the nation is engaged in a limited war, it seems likely that private construction may continue to use a large percentage of total lumber output. If an all-out war develops, the situation is likely to be reversed. Forestry officials do not anticipate much increase in production, although sufficient timber is available.

Lack of nearby markets is generally given as the chief factor against the establishment of finished products forest industries in Montana. During the past ten years, however, the great population growth in the West has at least created potential markets for forest products which might be produced in Montana. With its great forest resources, it is to be expected that in the future some manufacturing plants based upon them may be established in the state.

The Trade and Service Industries

Typically, in areas where no heavy industrialization exists, the provision of consumers' goods and services assumes the leading role as a source of nonagricultural employment. This is true in Montana, where the trade and service industries employ about one-half of all covered workers and over one-third of all nonagricultural workers. Trade and service income has amounted to from 21.2 to 24.9 percent of total income in Montana since 1929; it increased 200 percent between that year and 1950. Of total trade and service income, about three-fourths comes from the trade industries.

Trade

Both retail and wholesale trade are highly dependent upon the general levels of income and employment. The general and department store sales index moved steadily upward during the ten-year period, 1939-1948, particularly as more goods became available during the postwar years. The dollar volume of wholesale trade in Montana expanded even more than retail sales. The trade industries quickly felt the effect of lower employment

and income during the recession of 1949 and 1950 and recovered only after the outbreak of hostilities in Korea in June 1950. Since that time, retail sales of general and department stores have climbed to new highs, as a result of rising prices as well as increased volume.

Between 1939 and 1950, employment in trade ranged from a low of 24,200 in 1943 to a high of 36,600 in 1949 and 1950, or from 21.1 to 25.8 percent of total nonagricultural employment and from 32.0 to 38.3 percent of covered employment. These percentages are larger than for the United States as a whole, where trade accounted for from 17.1 to 21.9 percent of nonagricultural employment and from 19.2 to 25.2 percent of covered employment between 1939 and 1949.

There is considerable seasonal variation in employment in the trade industries. Although the percentage fluctuation is smaller than in some of the other industry groups, the concentration of covered employment in trade makes it of greater significance.

Total wages paid workers in wholesale and retail trade more than tripled between 1939 and 1950. With 36.2 percent of all covered workers in 1950 its payroll amounted to $95.4 million or only 32.7 percent of total covered wage payments.

Benefit payments to workers in the trade industries amounted to 0.63 percent of taxable wages between 1942-1943 and 1949-1950. Although eating and drinking places account for only a small part of total employment in trade, they have tended to raise the ratio of benefits to taxable wages.

The level of employment in the trade industries during the next ten years depends largely upon the duration and extent of the present national emergency. If consumer goods become scarce or if higher taxes and effective credit controls should reduce consumer expenditures, employment in wholesale and retail outlets will decline.

If the present emergency should end during the period under consideration, an increase in trade employment similar to that in 1946 and the following years might be expected as consumer goods become more abundant, provided that income and employment in other segments of the economy remain high. If, on the other hand, the national economy should experience a slump during the reconversion to a peacetime economy, employment in Montana's trade industries might remain at a depressed level or decline even further.

Services

Although of considerably less significance than trade in terms of income and employment, the service industries have expanded rapidly since 1939. Estimated total employment in the service industries averaged 18,800 in 1950, of which about 13,500 were covered workers. Between 1939 and 1950, covered service employment increased by 6,000 workers, or 60 percent. The growth was fairly steady, with only one decline, in 1943, and with a rapid increase after the war, as higher incomes resulted in increased demand for services performed outside the home. The magnitude of seasonal variation of employment is less marked in service industries than in trade.

The service industries have the lowest average weekly wage rates of any covered industry, partly due to the fact that many service employees frequently work less than a full work week. Total wages paid to covered workers in service industries amounted to $27.2 million in 1950, an increase of 300 percent over 1939. However, this represented only 9.3 percent of total covered wages in 1950, while covered service employment accounted for 13.3 percent of the total.

As long as personal disposable income remains at a fairly high level, the demand for services will continue. Thus the outlook seems to be for continued high employment in the service industries. With the exception of hotels and lodging places, employment in the service industries increased during the last national emergency. This increase probably will not be repeated to the same extent, however, since contrary to the experience in the late thirties and early forties, the state entered the present emergency with a period of prosperity and high demand for services behind it. The decline in employment in hotels and lodging places may be repeated if travel is again curtailed.

Transportation, Communication, and Other Public Utilities

Public utilities are estimated to have the highest physical investment per full-time worker of any industry group. The provision of transportation, communication, and other public utility services in an area as large and as sparsely settled as Montana requires a heavy investment per person served as well. Thus this group of industries makes up an important segment of the economy from the standpoint of capital investment as well as services rendered and numbers employed.

Covered employment figures fail to show the full importance of the various public utilities industries to the state because of the omission of interstate railroad employees, whose unemployment coverage is under the Railroad Retirement Act. In 1950, average total employment in transportation, communication, and other utilities amounted to 22,000 or 14.9 percent of total nonagricultural employment. Average covered employment in the same industries (excluding interstate railroads) numbered only 7,700 or 7.6 percent of total covered employment. Employment in transportation and utilities is less seasonal than in other major industry groups except mining and government.

Total wages paid to covered workers in transportation, communication, and other public utilities almost tripled between 1939 and 1950 and in that year amounted to $23.8 million or 8.2 percent of total covered wages.

Benefit payments to workers from covered utilities have been considerably below the average, reflecting the stability of employment in these industries, and amounting to only 0.29 percent of taxable wages between the fiscal years 1943 and 1950.

Total employment in public utilities has increased steadily during the postwar years and may continue to do so. Employment for the first half of 1951 was above that for the same period in 1950. Most of the increase took place in railroad employment, as the result of increased tonnage due to the Korean war, and in electric utilities where considerable construction activity was taking place. As the national defense program is accelerated, further increases in railroad employment may be anticipated. The rise in covered utilities employment is not likely to be as large, and if all-out war should develop, may decline as it did during World War II.

Practically all of the power generated in Montana is hydroelectric; the state has vast potentialities as yet undeveloped. The completion of two major dam projects now under construction in the state, Hungry Horse with an installed capacity of 285,000 kilowatts and Canyon Ferry, 50,000 kilowatts, will increase the capacity of generating plants in Montana by about 75 percent. Although not all the power produced will be utilized in Montana, huge blocks will be available for new industries such as the aluminum plant now proposed for the immediate dam area. The operation of the dams and the maintenance of power lines will result in an increase in employment in electric utilities, but the workers on government payrolls will not be covered by unemployment insurance.

Finance, Insurance, and Real Estate

With no large centers of commerce or finance located in Montana, its financial institutions are predominantly small and local in character. The majority of its banks are country banks serving agricultural communities. With the exception of one life insurance company and several branch offices, Montana's insurance and real estate establishments also serve primarily local needs.

Employment in finance, insurance, and real estate is small, but its record is one of steady increase, more than doubling since 1939. The group accounted for 3.9 percent of total covered employment in 1950, compared to 2.8 percent in 1939.[1] Seasonal fluctuations in employment in the finance industries are very small.

Wage rates in this group are somewhat lower than average, probably because of the large number of women workers. In 1950, wages paid to covered workers amounted to 3.6 percent of total covered wages, while 3.9 percent of covered employees were at work in these industries.

The ratio of benefits to taxable wages in finance, insurance, and real estate is the lowest for any industry group.

The steady growth and stabilized employment which has characterized the finance industries in the past may be expected to continue, limited, however, by the population growth and by the degree of industrialization of the state. To the extent that employment in these industries increases, it will tend to have a stabilizing influence on the total employment pattern.

Government

The past two decades have seen a widespread expansion of government services and functions and the number of government employees has increased substantially.

Montana has a higher percentage in government than the United States as a whole, due in part to its relatively small population and large area. Over three-fourths of all government employees in Montana are in state, county, and local government. The importance of agriculture, forestry, reclamation, and wild life in the state economy, all of which are served on behalf of the public, tends to increase the volume of government employment.

[1] Comparisons between 1939 and 1950 are not strictly valid, because of the fact that national bank employees were not covered until 1941.

Government workers are not covered by unemployment insurance, but their number is large enough to constitute an important part of the economy and to exert a stabilizing influence on total nonagricultural employment. Government employment will continue to constitute a sizeable portion of nonagricultural employment in Montana, although as other segments of the economy increase more rapidly it may decline further in relative importance.

The Tourist Industry

The term "tourist industry" represents a composite of all those businesses whose purpose it is to supply goods and services for travelers. It includes hotels, tourist cabins, dude ranches, eating and drinking places, transportation facilities, filling stations, souvenir shops, guide facilities, outfitters, various amusements and many other businesses which cater in some degree to the tourist business.

The dollars spent by travelers in the state benefit many segments of the economy and add directly to income and employment. The Montana State Highway Commission estimates on the basis of data cards filled in by tourists visiting the state that tourist income amounted to about $70,727,300 in 1950. Some indication of the increased employment which results from tourist business may be obtained from monthly figures for industries such as hotels, tourist camps, eating and drinking places, and filling stations, which show substantial seasonal employment increases during the summer months.

The tourist industry is sensitive to general business conditions throughout the country, to a greater degree than some of Montana's more basic industries. It is also subject to a curtailment during an extended national emergency if shortages of gasoline and rubber exist. Disregarding this possibility, the outlook for the tourist business is good.

Montana has great possibilities for expansion of its tourist trade. Many natural attractions, national and state parks, good fishing and hunting are available to the visitor. Transportation accommodations by rail, air, and highway enable the vacationist to reach most of his objectives easily. Well-planned promotional effort, together with preparations for accommodating larger numbers of visitors, should result in greater tourist revenue and increased employment in those industries catering to vacationists.

IX

MONTANA ECONOMY ASSUMPTIONS

The economic structure of Montana was discussed primarily in the preceding chapter, and to some extent in the other chapters of this volume. An attempt was made to cover at least the broader aspects of the institutional setting and the general economic characteristics, in order to provide an understanding of the economy of the state.[1] Emphasis was placed on strategic factors which contribute to stability or instability of employment and income. The purpose of such an emphasis was to furnish a background for the economy assumptions to be presented in this chapter.

With respect to these strategic factors, Montana and the country as a whole are compared. The state and national economies are closely interrelated, and the level of economic and business activity in the state is heavily dependent upon national conditions. If the nature of this interrelationship can be determined, and if a national pattern of economic behavior can be formulated, it then becomes possible to discuss with greater understanding the probable course of economic events in the state.

Economic Characteristics

The general economic characteristics of Montana may be summarized briefly as follows:

1. The population of the state is predominantly rural, in contrast to the largely urban population of the entire country.

2. Montana is principally a producer of foodstuffs and raw materials, while manufacturing is of primary importance in the United States as a whole. This is reflected in the distribution of employment and in the sources and types of income.

3. In spite of such pronounced economic differences, it appears that Montana has followed the national business cycle pattern fairly closely since 1929. Differences have been due largely to the volatility of agricultural income.

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[1] For more detailed treatment see PART ONE, UNEMPLOYMENT INSURANCE IN MONTANA (The Economy of Montana) published in co-operation with the Unemployment Compensation Commission by the Bureau of Business and Economic Research, Montana State University, December, 1951.

4. There is a greater seasonality in economic activity in Montana, attributable to seasonal weather changes and the influence of agriculture.

As further background for our assumptions, it may be helpful to summarize the more specific economic characteristics and developments which may influence the stability of employment in Montana over the next ten years.

Let us consider first some of the factors which will tend to produce more stable employment conditions in Montana than in the country as a whole:

1. The broad agricultural base of the Montana economy lends relative stability so far as employment is concerned. This is because of the large proportion of those engaged in agriculture who remain on the farms during depression as well as prosperity.

2. It is contended that the trend toward larger farm and ranch units makes for greater stability in agriculture, because of the improvement in financial strength and stability. Because of the importance of agricultural income in Montana, greater agricultural stability would reduce fluctuations in employment throughout the state.

3. The shift of owner-operator control, although it is partially opposed to the tendency just noted, also contributes to agricultural stability. This involves the development of irrigation projects and the establishment of small diversified farms.

4. An increase in manufacturing in the state probably would involve one stabilizing factor, namely, the increased diversification of production. However, there would also be offsetting unsettling factors as noted below. This point should not be given undue emphasis. While the prospects for expansion of manufacturing seem to be brighter than at any time in the past, the growth of manufacturing in this state probably will be slow between now and 1960.

5. The custom of mobility of Montana residents may ease the impact of a depression on the state economy. This is not a certainty, however, and would depend upon a number of factors, including employment conditions in other states and the extent of savings of unemployed workers. Extensive out-migration did not begin in the depth of the depression in the early thirties, but rather in 1935 as business conditions and employment opportunities improved. However, the general depression had been preceded by a serious drought-induced slump in

Montana, and the backlog of savings doubtless was very small. This is in marked contrast to the present period of high prosperity, labor scarcity, and increasing savings.

Another set of factors will operate on the other side, contributing to more unstable employment conditions in Montana. Among these are the following:

1. Increasing urbanization will intensify the impact of a depression. Between 1920 and 1950, the urban population in Montana increased 50 percent while the rural farm and nonfarm population declined 12 percent.

2. An increase in secondary and tertiary industries will increase the sensitivity to cyclical declines. Manufacturing and construction made the largest percentage gains in employment in Montana between 1940 and 1950, and a continuing moderate growth in this direction may be expected to continue. An increase in manufacturing in some fields would also result in increased numbers of workers in related occupations where employment is likely to be unstable.

3. The percentage of females in the population and labor force of Montana has increased over the years. This makes employment slightly less stable since women tend to be unemployed somewhat more than men. A further moderate increase in the proportion of female workers may be expected to occur, together with a further growth of the urban population, during the next decade.

4. Although agriculture is a stabilizing factor in the Montana economy, as explained above, the influence of agriculture is not all on the side of stability. The volatility of farm income, traceable principally to variations in the weather pattern, contributes to instability, although price supports have greatly reduced fluctuations in farm income. In the short run a considerable decline in farm income may not have wide repercussions. One bad crop, for example, may have little appreciable result except a drawing upon accumulated savings by farmers. However, a substantial reduction of farmers' purchasing power over a protracted period may have serious and widespread repercussions on employment and income.

Uncertainties of the weather, particularly with respect to rainfall, complicate attempts to predict the future. The most serious possibility in Montana is the recurrence of a series of drought years, as in the thirties. Such events cannot be successfully predicted, but some observers, noting the long series of

good years, believe that a drought may be due. This would be extremely serious particularly during a period of national prosperity because reduced farm incomes would be accompanied by high operating costs. It is estimated that the average Montana farmer does not have sufficient savings to enable him to operate much longer than a year without going into debt. Consequently, a two- or three-year drought period would have serious effects upon the entire Montana economy.

Estimates of average annual unemployment during the period 1940-50 in Montana and the United States are shown in Table 42. It appears that Montana has had relatively less unemployment than the country as a whole in most years since 1940. The important factors in Montana's low unemployment rates since 1943 have been lack of manufacturing and a greater dependence

TABLE 42

CIVILIAN LABOR FORCE AND UNEMPLOYMENT, UNITED STATES AND MONTANA

1940 - 1950

(Monthly average for each year)

Year	Civilian Labor Force		Unemployed			
			Number		Percent of Civilian Labor Force	
	U. S. (millions)	Montana (thousands)	U. S. (millions)	Montana (thousands)	U. S.	Montana
1940	55.6	226.3	8.1	25.1	14.6	11.1
1941	55.9	223.0	5.6	18.4	10.0	8.3
1942	56.4	216.6	2.7	12.4	4.8	5.7
1943	55.5	201.7	1.1	1.8	2.0	.9
1944	54.6	196.5	.7	.7	1.3	.4
1945	53.9	197.9	1.0	4.1	1.9	2.1
1946	57.5	218.3	2.3	7.5	4.0	3.4
1947	60.2	230.9	2.1	5.8	3.5	2.5
1948	61.4	237.8	2.1	5.5	3.4	2.3
1949	62.1	245.5	3.4	8.3	5.5	3.4
1950	63.1	247.4	3.1	11.8	5.0	4.8

Source: United States estimates: U. S. Department of Commerce, Survey of Current Business, 1949 Statistical Supplement; February 1950; February 1951.

Montana estimates by Bureau of Business and Economic Research, Montana State University.

upon the primary industries, and heavy out-migration during the early war years.

The high level of unemployment which continued in Montana through 1942 represents a carry-over from the depression years. By 1943 most of the unemployed had secured jobs in the state, had gone into the armed services, or had migrated to other states. It has been estimated by the Census Bureau that the Montana civilian population declined 44,000 between 1942 and 1943. By 1944 Montana had close to full employment. Contributing to this was the low level of seasonal unemployment during the war, explained largely by (1) the special efforts of industry, such as lumbering, and (2) less severe winters than usual.

By 1945 and especially in 1946, veterans were beginning to be released from the services and civilians were returning to Montana from war production centers. This resulted in a rapid recovery of population and a temporary increase in unemployment. Postwar prosperity, resulting in heavy demand for goods and services, caused a substantial decline in the number unemployed, and 1948 was the best postwar year to date. With the return to peacetime conditions, the prewar seasonal pattern began to reappear, with resultant higher seasonal unemployment.

During the recession of 1949, Montana's nonagricultural employment did not fall below the 1948 level until September, so that the percentage of unemployment for 1949 was less than for the country as a whole. In the first half of 1950 nonagricultural employment fell off rather sharply, well below the usual seasonal decline, and it is estimated that average total unemployment for the year almost reached the nationwide level.

Economy Assumptions

The estimates presented in this section for the period 1951-60 are not offered as forecasts or as precise estimates of unemployment during this period. They are intended rather as approximations of what might reasonably be expected under the circumstances described.

The estimates are projections for unemployment in Montana under three possible patterns of national economic activity during the decade of the fifties. Numerous variations and combinations of these patterns could be assumed, and these would of course present further possibilities for future unemployment estimates. It is believed that the three patterns presented represent a reasonable range of probabilities.

Table 43 shows estimated average unemployment as a percent of the civilian labor force, in the United States and Montana, under the three sets of assumed conditions for each year during the period 1951-60.

Table 43

ECONOMY ASSUMPTIONS — UNITED STATES AND MONTANA

UNEMPLOYMENT AS PERCENT OF CIVILIAN LABOR FORCE

Year	Assumption I		Assumption II		Assumption III	
	U. S.	Mont.	U. S.	Mont.	U. S.	Mont.
1951	2.5	2.0	2.5	2.0	2.5	2.0
1952	2.0	1.5	2.0	1.5	2.0	1.5
1953	2.0	1.5	2.0	1.5	1.5	1.0
1954	10.0	8.0	4.0	2.5	1.0	.7
1955	15.0	11.5	5.0	3.5	1.0	.7
1956	11.0	7.5	8.0	6.0	1.5	1.0
1957	9.0	6.5	7.0	5.5	4.0	4.0
1958	7.5	5.0	6.0	5.0	3.5	2.5
1959	6.0	4.5	6.0	4.5	5.5	3.0
1960	5.0	4.0	5.0	4.0	7.0	7.0

Assumption I

The first pattern to be considered assumes that a high level of employment and income will continue nationally through 1953 as a result of high government expenditures for defense and foreign aid, accompanied by moderate deficit financing and continued expansion in the capital goods industries. Under these conditions, it is considered that civilian production, while curtailed, would be able to meet the major portion of consumer demand.

Such a situation would result in a continued high demand for Montana products such as minerals, lumber, and agricultural commodities. A large volume of interstate railroad shipments would keep railroad employment high. Anticipating the availability of a fairly good supply of civilian goods, employment in trade and services would not decline so sharply as in the period from 1942 to 1945. With defense production concentrated in other areas, it is assumed that there would be some out-migration such as occurred during World War II, although to a lesser

extent. This combination of developments should result in practically full employment in Montana through 1953.

Both Montana and the United States entered World War II with considerable unemployment, most of it a residue from the depression. The great increase in manufacturing in war industries in the forties caused United States unemployment to decline more rapidly than Montana's. Both areas, however, entered the present emergency with much less unemployment and by 1951 both were enjoying approximately full employment with labor shortages developing. Thus, there is little reason to anticipate a lag in the decline of unemployment such as Montana experienced in the forties. Therefore, with some out-migration taking place, it is likely that the unemployment level in Montana would be somewhat less than in the United States during these years.

It is further assumed that the Korean War will be brought to an early conclusion and that by 1953 or early 1954 the international situation will be improved to such a degree that a substantial and sudden reduction of military expenditures would take place. The rather rapid termination of government contracts would force large-scale reconversions and the closing of some defense plants.

Under these conditions, it is assumed that unemployment in the United States would exceed that following World War II because of the shorter period of war production and considerably less dependence upon deficit financing. This would mean a relatively small accumulation of savings and a less serious shortage of capital equipment and consumer durable goods. Consequently, the backlog of demand probably would be smaller than in 1946, causing business anticipations to be less favorable. As a result, the same powerful incentives to rapid reconversion and increased production of civilian goods would not be present.

The combination of at least partial demobilization of the armed forces, reconversion in many industries and the closing of some defense plants would result in a sharp rise of unemployment nationally. It is estimated that 10 percent of the labor force in the United States would be unemployed in 1954, and that this would increase in 1955 to about 15 percent of the labor force, but would not exceed this level because government fiscal and other anti-deflationary measures would be brought into operation.

It is assumed that the forces bringing about a sharp decline in employment in the United States would affect Montana less severely, principally because of these two factors in this state:

(1) the lack of war industries subject to reconversion, and (2) the importance of agriculture, with the stabilizing effects of price supports upon farm income. However, the great expansion in employment which took place after World War II would not be repeated. A large part of that increase took place in the trade and service industries; however, because of the smaller backlog of demand, fewer shortages during the emergency, and the fact that it would be preceded by a period of high income and large consumer expenditures, such a development is not likely to recur.

It should be considered further that the demand for Montana export products such as minerals and lumber probably would decline. A sharp decline in the production of copper alone would result in heavy unemployment in three areas: Butte, Anaconda and Great Falls. The effect of unemployment in the mines and smelters would be felt by the trade and service establishments in these cities, creating serious local economic problems. The lumber industry, much of which is concentrated in northwestern Montana, would also be strongly affected in any recession or depression because of the large number of small, high-cost mills, which are extremely susceptible to price declines. A widespread shutdown in lumber operations would, of course, tend to aggravate the situation in that section. The effects of heavy unemployment in mining and lumbering would be felt throughout the state.

It is also assumed that with the closing of defense plants in other areas, Montanans who left the state would begin to return. With jobs less numerous than in 1946, when a similar movement took place, unemployment in 1954 might rise as high as 8 percent of the labor force, as compared with 10 percent nationally. In-migration probably would continue in 1955 and a further deterioration in the national situation would be reflected in the Montana economy, with a continued decline in the demand for Montana products. As a result, it is estimated that by 1955 unemployment in Montana would rise to about 11.5 percent of the labor force.

The existence of the agricultural price support programs would continue to exert a stabilizing influence on Montana's economy. In view of the importance of agriculture to the state, these programs are a strong factor in the assumption that unemployment would be less severe than in the nation. A fairly satisfactory level of farm income should tend to mitigate the effects of the depression on the trade and service industries, for

example. Of course, farmers and ranchers would not be strongly inclined to expand their operating units or invest in new heavy equipment as long as the general business attitude were one of pessimism.

It is anticipated that approximately full recovery would gradually take place in the United States from 1956 to 1960 as a result of government assistance through deficit financing, improvements in the economies of other nations, and technological advances and other developments which provide an impetus for a cyclical upswing. The improvement in the national economy would be felt in Montana, with corresponding declines in unemployment. As demand increases and prices rise, mineral production would be expected to expand, and small lumber mills would gradually resume operation with accelerating effects upon the rest of the economy. An increase in interstate railroad shipments would result in more railroad employment in the state. Farmers and ranchers would be likely to purchase more durable goods in view of the growing optimism.

Montana unemployment is estimated at less than the United States percentage during each year of the cyclical upswing because the initial impact of unemployment was less severe in Montana and because price supports should keep agricultural income at fairly high levels throughout the period.

Assumption II

Assumption II is based upon the continuation of serious international tension throughout the the period 1951 to 1960. A fairly early settlement of the Korean War is assumed, with a continuation of the cold war. It is assumed that aggressive acts in other areas may result in armed conflicts for short periods, but that a full-scale war will not develop. Under such an assumption, a high state of military preparedness and continued high government expenditures with a moderate degree of deficit financing may be anticipated. Thus, much the same developments for both the United States and Montana as described in Assumption I may take place during the period from 1951 through 1953.

By about 1954, it is assumed that the volume of defense production will have reached a level sufficiently high to maintain the desired state of military preparedness and that adequate stockpiles of critical materials will have been accumulated. Consequently, further increases in government expenditures

would not be required, and expenditures might even decrease moderately. In either case, unemployment would rise gradually and a measure of reconversion would take place. Nationally, unemployment would be concentrated in industrial areas, with most of the effect of the reconversion falling on the capital goods industries. However, government expenditures probably would be high enough to prevent unemployment from reaching a high peak, since it is assumed that a large army, navy, and air force would be maintained and that substantial military production would continue for replacement purposes and to provide new types of equipment.

It is estimated that, under such circumstances, unemployment in the United States would rise from 4 percent of the civilian labor force in 1954 to 8 percent in 1956. The demand for Montana products probably would decline only slightly. Since little reconversion would be necessary, Montana unemployment should be less than for the United States, with an estimated increase from 2.5 percent in 1954 to 6 percent in 1956. Some in-migration would take place (but probably less than under Assumption I), contributing to the unemployment.

It is assumed that after 1956 business conditions would gradually improve in the United States and Montana as the reconversion undertaken in the United States is completed and partial decontrol takes place. During the entire period it is assumed that Montana's unemployment would be less than that of the United States because of the lesser degree of dislocation due to reconversion and a continued high demand for Montana products.

Assumption III

The last possible situation to be considered assumes a full-scale war by 1952 or 1953. This would involve thoroughgoing economic controls together with heavy deficit financing. With the assumption that destruction on this continent would not be heavy enough to weaken significantly the American economic structure, full employment in the United States could be anticipated for the duration of hostilities. Because of the close similarity to World War II conditions, it is assumed that unemployment during the war and in postwar years would follow much the same pattern as during the last decade.

It is likely that Montana would again experience a heavy out-migration to defense areas. With all-out war in process, seasonal industries such as lumber would operate on a fuller time

schedule and seasonal unemployment in the state would be at a minimum. No difficulty would be experienced by the seasonally unemployed in obtaining other temporary work. With the existence of such conditions, unemployment in Montana would be at a minimum, estimated at less than one percent, or slightly lower than the United States, from 1953 through 1955.

It is assumed that the war would end in 1956 or early 1957 with victory for the United States and its allies. With four years of war behind us during which income was high and consumer goods scarce, a backlog of demand similar to that of 1946 would have been built up. Thus, it is anticipated that reconversion would take place swiftly with only a small amount of unemployment, as in 1946.

Although there would be little reconversion in Montana, it is assumed that the rate of unemployment would rise as high as the national rate due to the increase in the size of the labor force through in-migration. As after World War II, however, unemployment would decline more rapidly than in the United States as trade and service and other industries curtailed during the war expanded rapidly while the closing of some war plants left large numbers unemployed elsewhere.

By 1959 the pent-up demand as a result of the war would be largely filled and a national slump might take place similar to that which began in 1949, resulting in the most severe unemployment of the decade. It is assumed that Montana would not immediately feel the effects of this national recession (the 1949 slump did not really affect the state until early 1950) but that the slackening demand for Montana products such as metals and lumber would affect the state's economy by 1960 and result in an unemployment rate as high as the national.

X
LEGISLATIVE ALTERNATIVES

Following are ten alternative legislative provisions:

	Minimum Weekly Benefit	Maximum Weekly Benefit	Maximum Duration (Weeks)	Required Waiting Weeks
1*	$ 7.00	$20.00	18	2
2	7.00	20.00	18	1
3	10.00	25.00	24	1
4	7.00	25.00	18	1
5	7.00	25.00	20	1
6	7.00	30.00	20	1
7	10.00	25.00	18	1
8	10.00	30.00	18	1
9	10.00	25.00	20	1
10	10.00	30.00	20	1

* The formula in No. 1 is that now provided in the law.

XI

The Long Range Unemployment Insurance Benefit Costs and the Solvency of Unemployment Insurance Reserves in Montana

U. S. DEPARTMENT OF LABOR

Bureau of Employment Security

Preface

The purpose of this chapter is to examine the probable costs of unemployment insurance benefits in Montana for the next decade and to evaluate the adequacy of the existing reserves.

The costs of an unemployment insurance program depend primarily upon two factors; the type of law in operation, that is the specific benefit, duration and eligibility conditions; and the volume of compensable unemployment existing in the State during the period under consideration.

Since the average annual benefit expenditures will differ depending on the provisions of the law, estimates have been prepared on the basis of ten alternative benefit formulas, thus pointing up the differences in cost due to changes in various provisions.

The costs of each of the ten benefit formulas were estimated on the basis of three different economic models. These models were developed on the basis of a careful study of the Montana economy and they depict a reasonable range of probability within which actual unemployment during the next decade may fall.

The estimated average annual benefit expenditures over the next decade, on the assumption that the present law remains unchanged, will range from 0.52 percent of taxable wages under the most favorable economic assumption to 1.13 percent under the least favorable economic assumption. This does not mean that the costs will be the same during each of the years of the projected period. The costs will naturally vary depending on changes in the level of compensable unemployment. The average for the period, however, is likely to fall within this range on the basis of the economic assumptions developed for this study.

Under the most favorable economic assumption the range in cost for the ten benefit formulas is from 0.52 to 0.75 percent of taxable wages; for the medium economic assumption the range is from 0.83 to 1.21 percent; and for the least favorable economic assumption the range is from 1.13 to 1.61 percent of taxable wages. The detailed computations are presented in the body of the report.

The information developed in this report has two principal uses. It can assist in the legislative deliberations on alternative benefit formulas by providing information as to the relative costliness of such formulas. Secondly, the information here developed provides a basis for the formulation of financial policy after the enactment of desired legislation. The formulation of such policy, however, requires several administrative decisions. The first such decision involves the selection of that one economic assumption from the three considered in this report, which appears to be the most probable and useful for the purpose of a general financial plan. The comparatively low cost of the unemployment insurance program in Montana may suggest the selection of that economic assumption which results in the highest cost, since this would provide the maximum safety and yet not result in a burdensome tax rate. Following the selection of the economic assumption, the valuation of the reserve can be undertaken. Such a valuation is made in Section II of this chapter. It indicates that the present reserves in Montana are more than sufficient to provide all necessary allowances for contingencies and that if desired, it would be safe to permit the use of a portion of these reserves, as well as the future interest earnings on the reserves, to defray a part of the benefit costs during the period. However, since the benefit costs are comparatively low even under the assumption of unfavorable economic conditions and for the costliest of the assumed benefit formulas, an average tax rate over the next ten years equal to the average annual benefit cost rate might not be burdensome. In that case, it may be considered desirable to finance benefits over these ten years either entirely out of tax revenues, or tax revenues supplemented by interest earnings, while the reserves are permitted to remain at the present level. At any rate, there does not appear to be any justification for a continued increase in the level of reserves. These considerations are developed more fully in the body of this chapter.

After the necessary decisions with respect to the treatment of reserves are reached it is possible to determine, on the basis

of the formula presented, the amount of average annual revenue necessary to finance the estimated costs. Having made such a determination, the next and final step in the development of a concrete financial plan is a re-examination of the current experience rating schedule to determine whether or not any changes are necessary, in order that the determined amount of average annual revenue may be realized.

While this report does not go through all the steps necessary for the formulation of such a concrete financial policy, it performs several of the indispensable functions without which such a policy cannot be developed.

It presents cost estimates covering a broad area of economic and legislative assumptions and it presents a method for determining the required average annual rate of revenue. However, as has been pointed out, administrative decisions must first be made with respect to the selection of the economic model, and the reserve policy to be followed.

Section I--Long Range Cost Estimates

Introduction

The Montana unemployment compensation law has been in effect since March 16, 1937 and benefits have been payable since July 1, 1939. At the inception of the program, there was no experience with unemployment insurance which could be used as a basis for the preparation of cost estimates. Consequently, the financial structure of the program was related to estimated benefit costs for the country as a whole, which were based on whatever employment and unemployment data were then available. Since its enactment, the program in Montana has been altered from time to time with regard to benefit formula and tax rate schedule. The changes were in the main prompted by short-run considerations. Over the past 13 years, however, an extensive background of experience in the payment of benefits and management of reserves has been acquired. It is desired at this point to study the basis for effecting an actuarial balance between benefit outlays, tax collections, and reserves. Estimates of anticipated long-range costs are necessary for this purpose.

The cost of unemployment insurance is dependent upon the provisions of the unemployment compensation law on one hand, and economic conditions on the other. Since both of these factors are subject to change, costs were estimated on the basis of alternative legislative and economic assumptions. The derived estimates, therefore, constitute a probable range of costs to be anticipated over the coming years.

Cost rates were estimated on the basis of three alternative economic assumptions, each of which represents roughly a cycle of business activity with adjustments for the anticipated effects of the international situation on economic developments in the state. The incidence of the unemployment risk is dependent mainly on economic developments which cannot be forecast with any degree of precision. In order to facilitate financial management in unemployment insurance, however, a range of probable economic developments can be projected as a basis for the preparation of cost estimates. These projections represent formulations of economic assumptions solely for the purpose of developing a range of probability suitable for cost estimating, and are not forecasts of future economic conditions.

Actuarial estimates represent anticipated costs over the long run. If it could be assumed that the level of unemployment would be relatively stable with secular rise or fall occurring gradually over the years, cost estimates could be based on the experience of recent years, and re-examined every few years in order to determine the effects of the secular trends. However, failure to take account of the possibility of cyclical declines in business activity would result in a probable understatement of costs and, in turn, in a poorly financed system. Therefore, costs were estimated over business cycle patterns which include years of low and high unemployment.

Since economic developments cannot be forecast with precision, attempts to project cost estimates too far into the future will increase the likelihood and range of error. Fortunately, however, the range of error due to the unreliability of economic forecasts is reduced by self-limiting factors inherent in the unemployment insurance program. During peak years of stable employment, when unemployment is at relatively low levels, benefits will be paid mainly to workers experiencing relatively short spells of unemployment. Practically all unemployment in such a group will be caused by normal turnover due to seasonal and technological factors; the unemployed workers will tend to find jobs with relative ease. During years of depressed business activity, on the other hand, the unemployed segment of the labor force includes workers unable to find jobs until business recovers, in addition to those temporarily unemployed because of seasonal and technological factors. From the actuarial point of view, the duration of cyclical unemployment—whether it be one or three years—is relatively unimportant, since only the early phase of this unemployment is compensable. These workers collect all benefits due them on the basis of their base-period earnings and, after exhaustion of benefit rights, they continue in unemployment status without collecting benefits until job opportunities improve as a result of business recovery and they can again acquire wage credits. The limited duration provision in unemployment insurance, therefore, constitutes a self-limiting factor with regard to costs. In the event of a protracted depression, the workers in the cyclical unemployment group will collect benefits due them and will remain in exhaustion status without collecting benefits for the remainder of their unemployment spell. The additional benefit costs due to cyclical unemployment will be relatively small when averaged over years of high and low un-

employment. The use of the business cycle pattern for estimating costs provides assurance that the self-limiting factors in unemployment insurance will be reflected in the cost estimates.

In order to estimate benefit costs over a business cycle, the following conditions should be established: (1) relatively favorable levels of employment at the beginning and end of the cycle; (2) employment declining at an early part of the cycle and rising at a later one; (3) the number of rises and declines in the volume of unemployment; and (4) the range of variations in the volume of unemployment. These points were considered in the formulation of the three assumed economic patterns, which cover the period 1951-1960.

Benefit costs over the coming years will depend not only on economic developments but also on the legislative changes which may be enacted. The provisions of the Montana unemployment compensation law will probably be altered in some respects during the next few years in order that the declared objectives of the program may be fulfilled in the light of continually changing economic conditions. Long-range costs may be significantly affected by changes in the following elements of the benefit formula; (1) the waiting period requirement; (2) the weekly benefit amount—the rate, minimum, maximum (3) duration of benefits; and (4) qualifying base-period earnings requirement. Innumerable modifications and combinations of these factors will undoubtedly be considered by the State legislature from time to time. Without presuming to predict what these legislative proposals are likely to be, the cost consequences of a limited number of alternative legislative patterns have been developed in detail. It is felt that the presentation of cost estimates under the selected formulas will provide adequate information for making valid inferences with regard to the proposals which the State legislature may wish to consider.

Economic and Legislative Assumptions

On the basis of a study of the Montana economy, three alternative economic assumptions were projected. Table 44 contains the variations in unemployment rate over each of the assumed patterns.

Table 44—Total unemployment rate as a percent of total labor force, by year, for the assumed economic patterns over the period 1951-1960.

YEAR	Economic Assumptions		
	Pattern I	Pattern II	Pattern III
1951	2.0	2.0	2.0
1952	1.5	1.5	1.5
1953	1.5	1.5	1.0
1954	8.0	2.5	0.7
1955	11.5	3.5	0.7
1956	7.5	6.0	1.0
1957	6.5	5.5	4.0
1958	5.0	5.0	2.5
1959	4.5	4.5	3.0
1960	4.0	4.0	7.0
Average	5.2	3.6	2.3

Under the current provisions of the Montana unemployment compensation law, benefits are paid at the weekly rate of 4½ percent of high-quarter earnings rounded to the next highest dollar, with a minimum of $7 and a maximum of $20. Claimants with covered earnings during their base-period equal to at least 30 times their weekly benefit amount are eligible for benefits which are payable for uniform potential duration of 18 weeks after a waiting period of 2 weeks in the benefit year. Benefit determinations are made in accordance with a step-down procedure, whereby a worker with base-period earnings of less than 30 times the weekly benefit computed on the basis of his high-quarter earnings may qualify for a lower weekly payment, which would enable him to meet the base-period earnings requirement.

For each of the three assumed economic patterns, cost rates over the period, 1951-1960 were estimated under the current benefit formula and under nine other formulas. The assumed formulas differ from the current law only in the following respects. (1) minimum and maximum weekly benefits, (2) the number of weeks of uniform duration, and (3) a waiting period requirement of only one week instead of two. The alternative provisions of the ten formulas for which costs were estimated are shown in Table 45.

Table 45—Alternative provisions of the benefit formulas—current formula and nine alternative variations.

Formula Number	Range in weekly benefit amounts	Waiting period in weeks	Uniform duration in weeks
1[1]	$ 7-20	2	18
2	7-20	1	18
3	7-25	1	18
4	7-25	1	20
5	10-25	1	18
6	10-25	1	20
7	10-25	1	24
8	10-30	1	18
9	7-30	1	20
10	10-30	1	20

[1] Current law in effect since April 1, 1949.

Outline of Actuarial Procedure

The cost rate—the ratio of benefit expenditures to taxable wages—is equal to the product of the following two ratios:[1]

$$\frac{\text{average weekly benefit amount}}{\text{average taxable weekly earnings}} \times \frac{\text{average compensable unemployment}}{\text{average covered employment}}$$

The estimated cost rates were derived by the substitution of estimated values for each of the above ratios. The basis for the derivation of these estimated values is presented in subsequent sections of this report.

Average Weekly Benefit Amount as a Percent of Average Taxable Weekly Earnings

Average weekly benefits and average taxable weekly earnings for each year of the period 1946-1951 are shown in Table 46. The current benefit formula has been in effect since April 1, 1949 when the maximum weekly benefit amount was increased from $18 to $20 and the uniform duration was increased from 16 to 18 weeks. Before April 1, 1947, the weekly benefit amount ranged from $5 to $15, based on 4 percent of the high-quarter earnings. The current waiting-period requirement of 2 weeks in a benefit year, regardless of the number of spells of compensable unemployment in that year, has been in effect since 1945.

[1] See technical Note 1 at end of Section I for the derivation of this formula.

Table 46—Average weekly benefit amounts and average taxable weekly earnings by year, 1946-1951.

YEAR	Average weekly benefit amount	Average taxable weekly earnings[1]	Average weekly benefit amount as a percent of average taxable weekly earnings
1946	$13.35	$36.95	36.1
1947	14.24	40.44	35.2
1948	16.01	43.51	36.8
1949	17.31	45.51	38.0
1950	17.97	47.13	38.1
1951	17.90	50.38[2]	35.5

[1] These averages reflect wage and salary earnings up to only $3,000 a year, and are not to be compared with employees' total weekly earnings which are significantly higher.
[2] Average for 12 month period ending September 30, 1951.

Only the 1950 and 1951 average weekly benefit amounts Shown in Table 46 reflect payments made entirely under the current provisions of the unemployment compensation law. The estimated figures in Table 47 represent what the average weekly benefit amounts and the ratios of these averages to average taxable weekly earnings would have been for each year of 1946-51, had benefits been payable under the current provisions of the Montana unemployment compensation law throughout the period.

Table 47—Estimated benefit amounts for 1946-51 payable under the current Montana benefit formula.

YEAR	Average weekly benefit amount	Average weekly benefit amt. as a percent of average taxable weekly earnings
1946	$17.03	46.1
1947	16.93	41.9
1948	17.03	39.1
1949	17.78	39.1
1950	17.97	38.1
1951	17.90	35.5

Assuming no change in weekly benefit formula, the average weekly benefit amount is dependent upon the distribution of earnings among claimants. The claimant group is generally not representative of the labor force as a whole, so that variations in

weekly benefits are not necessarily related to over-all wage trends. During the initial stages of a sharp business decline, the average weekly benefit amount may rise primarily because of a change in the composition of the claimant group. During such a period, a higher proportion of the lay-offs occur among workers hitherto in a stable employment and in relatively high wage-rate categories. When employment is stabilized at a lower level or tends to rise, the average weekly benefit amount may decline because of lower claimant earnings.

In order to evaluate the ratio of average weekly benefit amount to average taxable weekly earnings over the coming years, the trend in average taxable weekly earnings as well as in average weekly benefit amount must be taken into account. Average taxable weekly earnings rose over 36 percent from 1946 to 1951, whereas the average weekly benefit amounts adjusted to reflect the current Montana benefit formula showed a rise of less than 6 percent. Thus, had benefits been paid under the current Montana law throughout the period 1946-51, the range in average weekly benefit amount would have been considerably narrower than in average taxable weekly earnings. Hence, the value of the ratio of the average weekly benefit to average taxable weekly earnings over the assumed economic patterns will depend for the most part on the assumption made with respect to future trends in average taxable weekly earnings.

Since it has been assumed that peak employment and low unemployment levels would prevail during the early years of the projected periods, weekly earnings are bound to rise during these years. Regardless of national wage policy, the likelihood of a longer work week would tend to enhance weekly earnings during such a period. The assumed employment declines during subsequent years vary in severity from pattern to pattern, and the level of weekly earnings may be different for each pattern. The shorter work week to be anticipated during the less favorable years would undoubtedly result in lower weekly earnings. However, the rigidity of the wage rate structure would tend to minimize the decline in weekly earnings so that average taxable weekly earnings might not drop below the level of 1950 for any year of the projected periods. Moreover, the decline in taxable weekly earnings may be less than in total weekly earnings since each worker's wages subject to contributions are limited to a specific amount per year.

The estimated cost rates under the current Montana law were calculated on the basis of the ratio of the average weekly benefit amount to average taxable weekly earnings being equal to 38.1 percent. The 38.1 percent figure will be realized over the projected period if taxable weekly earnings of individual years would fluctuate about the level of 1950 as an average. Should the average taxable weekly earnings over the projected 10-year period exceed the level of 1950 because of secular rise in earnings, then the ratio of weekly benefits to taxable weekly earnings and the corresponding cost rates will have been overstated.

Table 48 shows the ratio of the average weekly benefit amount to average taxable weekly earnings under each of the assumed benefit formulas; the values of this ratio were calculated by increasing the ratio under the current law by the percentage increase in average weekly benefit amount due to each assumed change in benefit formula.

Table 48—Effect of assumed weekly benefit formulas on the average weekly benefit amount and on the ratio of the average weekly benefit amount to average taxable weekly earnings.

Minimum and maximum weekly benefit amounts[1]	Estimated Avg. weekly benefit amount in 1951	Est. percentage increase in avg. weekly benefit amt. by change over to assumed benefit formula	Est. avg. weekly benefit amt. as a percent of avg. taxable weekly earnings
$ 7-20	$17.90	.....	38.1
7-25	20.63	15.3	43.9
10-25	20.75	15.9	44.2
7-30	22.45	25.4	47.8
10-30	22.56	26.0	48.0

[1] Weekly benefit rate equal to same percentage of high-quarter earnings as that currently contained in the Montana Unemployment Compensation Law.

Average Compensable Unemployment as a Percent of Average Covered Employment

The ratio of average compensable unemployment to average covered employment reflects the number of beneficiaries and the duration for which they receive benefits.

Benefit disbursements will vary in accordance with the level of compensable unemployment. Compensable unemployment is composed of eligible covered workers unemployed long enough to have met their waiting-period requirement but not for so long as to have exhausted their benefit rights. For any assumed level

of unemployment, the proportion of unemployment in compensable status could vary over a considerable range depending upon a number of administrative and secondary economic factors. A substantial segment of unemployment cannot receive benefits under current legislation because of coverage restrictions based on industry and occupation. Even if there were no such restrictions, however, there would still be a significant segment of unemployment not in compensable status. Since eligibility for benefits is based on previous earnings in covered employment, new entrants into the labor market without prior work experience are not entitled to benefits but are included in the count of unemployment. In addition, workers who exhausted their benefit rights but continued to be unemployed would not be in compensable status.

Covered unemployed workers are entitled to benefits only in the compensable duration of unemployment interval. This interval is in general determined by the waiting-period and duration provisions of the state law. A covered worker with sufficient wage earnings during his base-period, after serving the waiting-period, becomes entitled to his first payment at the end of the first compensable week of unemployment. Thus, in Montana, where the waiting-period is two weeks, an otherwise eligible claimant must have been unemployed for three weeks in his benefit year before he may receive his first benefit payment. The length of the compensable duration of unemployment interval for which a claimant is entitled to benefits is determined by the potential duration according to his base-period earnings. Under the current Montana law, eligible claimants are entitled to a uniform duration of 18 weeks. Thus, the compensable duration of unemployment interval is at least 3 weeks but less than 21 weeks.

The volume of covered workers in the compensable duration of unemployment interval is dependent upon the unemployment rate and the distribution of the covered workers by duration of unemployment. This distribution by the duration of unemployment can be portrayed as a function of labor turnover and unemployment rate by postulating a simple labor force model. [2] In this model, the labor force is assumed to be constant in both size and composition, and homogeneous with each worker having the same chance of being hired or laid off. By application of simple principles of the theory of probability, the distribution of the duration of unemployment can be presented as a function of

[2] See Technical Note 2 at end of Section I.

the covered unemployment and turnover rates. To the extent that covered unemployment is homogeneous with respect to the factors upon which costs are dependent, this duration distribution is valid for estimating compensable unemployment under assumed economic conditions.

The "covered labor force" represents the group of workers participating in the unemployment insurance program. For purposes of actuarial analysis, a distinction should be made not only between covered and noncovered employment but also between covered and noncovered unemployment. Covered unemployment represents persons with sufficient attachment to covered industries to file an initial claim when laid off, and includes individuals who have exhausted their benefit rights in the not too distant past. The noncovered segment of unemployment is composed of unemployed workers who do not file claims for benefits, those excluded from coverage because of industry or occupation, temporary and casual workers separated from covered establishments, new entrants, and persons re-entering the labor market after a long absence. Even if coverage were not restricted on account of industry or previous earnings, there would still be a noncovered group consisting of new entrants, temporary and casual workers, persons re-entering the labor market after a long absence, and exhaustees who "lost their attachment" to the covered labor force because of long duration of unemployment. This latter category is included in chronic or "hard-core" unemployment during a period of high unemployment.

In order to compare covered and total unemployment rates over past years for which total unemployment rates have been estimated, corresponding estimates of covered unemployment can be made from data available as a result of unemployment insurance operations. For this purpose, covered unemployment may be defined as the sum of the following four items: (a) compensable unemployment; (b) waiting-period unemployment; (c) exhausted unemployment; and (d) ineligible unemployment.

For each calendar year of the period 1946-51, average compensable unemployment was estimated as the number of weeks compensated divided by 52, and average waiting-period unemployment as the number of waiting-period claims divided by 52. Exhaustion unemployment is a more elusive concept. The number of exhaustees during a year multiplied by the average duration of unemployment after exhaustion is an approximation of the number of man-weeks of exhaustion unemployment. Average an-

nual exhaustion unemployment is equal to the aggregate number of man-weeks of exhaustion unemployment divided by 52. Ideally, data on duration of unemployment after exhaustion should be obtained from a series of post-exhaustion studies for each year. Since such a series is not available, however, it was assumed that the average duration of unemployment after exhaustion for each year was about equal to the average duration of benefits. Ineligible unemployment was estimated as the product of the number of claims disallowed because of insufficient base-period earnings and the average actual duration of benefits divided by 52. The covered labor force is the sum of covered employment and covered unemployment, and the covered unemployment rate is the ratio of covered unemployment to covered labor force.

A comparison of total and covered unemployment rates by year for 1946-1951 is shown in table 49. The covered unemployment rates were derived by the method described above. According to the estimates in table 49, the total and covered unemployment rates were nearly equal during 1946, 1947, and 1948. In 1949 and 1950, when unemployment rose, with layoffs heaviest in covered industries, the covered unemployment rate tended to exceed the total rate. Because of the error inherent in the estimated unemployment rates, however, it cannot be inferred that the covered and total unemployment rates would diverge during periods of rising unemployment by the magnitudes indicated by the estimates shown in table 49 for 1949 and 1950.

Table 49—Estimated total and covered unemployment rates, by year, 1946-1951.

YEAR	Total unemployment as a percent of total labor force[1]	Covered unemployment as a percent of covered labor force
1946	3.4	3.1
1947	2.5	2.3
1948	2.3	2.5
1949	3.4	4.4
1950	4.8	6.6
1951	[2]	3.6

[1] Source of data—Bureau of Business and Economic Research of the University of Montana.
[2] Data not available.

Since labor force movements are governed by a multiplicity of complex factors, it is extremely difficult if at all possible to formulate a precise mathematical relationship between total and covered unemployment. On the basis of simple inferences consistent with experience, however, covered unemployment rates

were determined for each of the years of the three assumed economic patterns. The factors considered in the determination of the covered unemployment rates are discussed below.

The unemployment insurance system functions most effectively in compensating wage loss due to involuntary unemployment during periods of peak employment and the initial stages of a business decline, when most layoffs occur in covered establishments among workers eligible for benefits. During the subsequent stages of a setback, an ever-increasing percentage of the unemployed workers remain out of work for relatively long spells and experience great difficulty in finding jobs. Under such conditions, the bulk of unemployment would be comprised of workers in exhaustion status or of new entrants with no wage credits, while compensable unemployment would consist almost entirely of workers unemployed because of seasonal and frictional factors.

These general observations can be supported with statistical evidence. During the initial stages of a business decline, a major part of the decline in employment can be traced to manufacturing. As unemployment continues at a higher level, a group of chronic or "hard-core" unemployment appears. Area studies during the 1930's on the duration of unemployment have shown that the concentration of unemployment in the longer duration intervals becomes heavy as unemployment rises and persists at relatively high levels. Logical inferences regarding covered unemployment rates can be made from these observations.

During periods of continuing unfavorable employment conditions, covered unemployment would decline even if total unemployment did not. The new entrants constitute a relatively marginal group, since their chances of finding employment are bound to be less than for experienced covered workers. In addition, a substantial proportion of covered workers would lose attachment to the covered labor force because of long duration of unemployment. For each group of separated workers the probability of finding a new job tends to decline as the period of unemployment lengthens. At the time of separation the chances of re-employment are unequal, and those with better chances are likely to find jobs sooner. The proportion of marginal workers among the unemployed increases steadily with the increase in the duration of unemployment. After as many as two years of depression, this group tends to lose attachment to covered industries and is no longer part of covered unemployment. With

improvement in business conditions, this group would be less likely to find employment than those workers still in covered unemployment.

Covered unemployment tends to encompass a "turnover" group, i.e., experienced workers with relatively short duration of employment and relatively better chances of obtaining employment. During periods of recovery, covered unemployment would decline at a faster rate than total unemployment, since covered unemployment is composed of workers with better chances of finding work.

For the purpose of estimating the cost of unemployment insurance on a relatively long-run basis, the covered segment of the labor force may be treated as though it were independent of the noncovered segment. The distinction is somewhat arbitrary, since workers are continually switching from one segment to the other. In general, however, it may be assumed that the two groups tend to behave largely as independent entities, and that the degree of movement between them is not sufficient to affect costs to any appreciable extent.

Compensable unemployment is generated even during stable years of peak employment as a result of frictional, seasonal, and secular factors in the economy of the state. Covered unemployment during such a period may be treated as though it were a homogeneous group to the extent that the probability of being hired is practically the same for each individual. Because of differences among workers with regard to special skills, experience, or contacts, not all would be willing to accept employment at the same wage rate. Each worker, however, will have practically the same chance of finding suitable employment and, therefore, the same chance of being or not being in compensable status.

During periods of unfavorable business conditions, the unemployed group as a whole tends to become more heterogeneous. A sharp line of demarcation may be detected between turnover and "hard-core" segments. With regard to the covered unemployment group, however, workers unemployed over relatively long spells lose attachment to covered industries and are not included in the covered labor force. Despite differences among covered workers, therefore, covered unemployment may be considered homogeneous for the purpose of estimating compensable unemployment. The resulting estimates tend to be biased upward to the extent that the assumption of homogeneity with re-

gard to hiring probability in covered unemployment is not realized.

Since the total unemployment rates in both Patterns II and III were not assumed to reach high levels, the maximum unemployment rate being only 6.0 percent, the covered unemployment rate for each year of these patterns was assumed to be the same as the total rate. In Pattern I, however, where the total unemployment rate was assumed to reach as high a level as 11.5 percent, an adjustment was made for new entrants and exhaustees unemployed over long spells. Table 50 contains the covered unemployment rates corresponding to the total unemployment rates in table 44.

Table 50—Estimated covered unemployment as a percent of covered labor force, by year, for each of the assumed economic patterns.

YEAR	Pattern I	Pattern II	Pattern III
1951	2.0	2.0	2.0
1952	1.5	1.5	1.5
1953	1.5	1.5	1.0
1954	8.0	2.5	0.7
1955	9.5	3.5	0.7
1956	7.5	6.0	1.0
1957	6.5	5.5	4.0
1958	5.0	5.0	2.5
1959	4.5	4.5	3.0
1960	4.0	4.0	7.0
Average	5.0	3.6	2.3

In order to compute the volume of compensable unemployment, values for the following three items had to be determined: (1) average annual covered unemployment rates; (2) effective separation rates; and (3) the compensable duration of unemployment intervals. The estimated covered unemployment rates are shown in table 50 and the effective separation rates in table 51.

Effective separations refer to the separations from covered employment which result in the filing of initial claims. The ratios of initial claims per 4-weeks to average covered employment for past years were used to represent the rates of effective separation. Individual years of the projected cycles were compared with past years, and the separation rate per 4-week period for each year of the assumed patterns was based on that of a past year with similar conditions. These projected separation rates should not be confused with published turnover data which include separations among noncovered workers and instances involving shifts from one job to another.

Table 51—Effective separation rates per 4-week period by year, for each of the assumed economic patterns. (Separations as a percent of covered employment).

YEAR	Pattern I	Pattern II	Pattern III
1951	1.2	1.2	1.2
1952	1.0	1.0	1.0
1953	1.0	1.0	0.5
1954	3.0	1.5	0.5
1955	3.0	2.0	0.5
1956	3.0	2.5	0.5
1957	2.5	2.5	2.0
1958	2.0	2.5	1.5
1959	2.0	2.5	2.0
1960	2.0	2.5	2.5

The volume of compensable unemployment was estimated under the current provision of a two-week waiting-period with uniform duration of 18 weeks, and under a one-week waiting-period with alternative uniform durations of 18, 20, and 24 weeks.

The corresponding compensable duration intervals are as follows: (1) at least three but less than 21 weeks; (2) two but less than 20 weeks; (3) two but less than 22 weeks; and (4) two but less than 26 weeks.

Table 52 contains the estimated volume of compensable unemployment for each waiting-period and uniform duration assumption. It was assumed that the proportion of claimants with sufficient wage credits under the various benefit provisions would not vary significantly in view of the step-down provison. [3] Compensable unemployment for each of the duration-of-unemployment intervals is equal to the estimated volume of covered workers in this interval reduced by 4.9 percent, the proportion of covered unemployment estimated to be in the status of ineligible unemployment.

Table 52—Estimates of compensable unemployment for each duration of unemployment interval and economic pattern.

Duration of unemployment interval (in weeks)		Volume of compensable unemployment per 100,000 covered labor force			Volume of compensable unemployment as a percent of covered employment		
		Patterns			Patterns		
at least	but less than	I	II	III	I	II	III
3	21	2,815	2,106	1,336	2.96	2.19	1.37
2	20	3,068	2,351	1,477	3.23	2.43	1.51
2	22	3,195	2,425	1,531	3.36	2.52	1.57
2	26	3,414	2,596	1,612	3.59	2.69	1.65

[3] The step down provision which is contained in Paragraph 3, Regulation B-9 of the Rules and Regulations (Regulation 411, revised 9-1-52) under the Montana Unemployment Compensation Law entitles a claimant to draw weekly benefit amount equal to 1/30 of his base-period earnings if these earnings are not sufficient to qualify him for the full weekly benefit amount of 4½ percent of his high-quarter earnings.

Table 53 contains the ratio of average weekly benefit amount to average taxable weekly earnings and the ratio of average compensable unemployment to average covered employment for each legislative and economic pattern.

Table 53—Component ratios of the estimated cost rate for each legislative and economic pattern.

Benefit formula[1]			Average weekly benefit amount as a pct. of avg. taxable weekly earnings	Avg. compensable unemployment as pct. of avg. covered employment		
Formula Number	Weekly benefit range	Uniform duration (in weeks)		Pat. I	Pat. II	Pat. III
1[1]	$ 7-20	18	38.1	2.96	2.19	1.37
2	7-20	18	38.1	3.23	2.43	1.51
3	7-25	18	43.9	3.23	2.43	1.51
4	7-25	20	43.9	3.36	2.52	1.57
5	10-25	18	44.2	3.23	2.43	1.51
6	10-25	20	44.2	3.36	2.52	1.57
7	10-25	24	44.2	3.59	2.69	1.65
8	10-30	18	48.0	3.23	2.43	1.51
9	7-30	20	47.8	3.36	2.52	1.57
10	10-30	20	48.0	3.36	2.52	1.57

[1] Formula Number 1 represents the current law with the 2-week waiting period; the other benefit formulas include a waiting-period requirement of only one week.

The estimated cost rate under each benefit formula for each economic pattern is shown in table 54. The ratios in table 53 were used to compute these rates.

Table 54—Estimated cost rates for the assumed legislative and economic patterns.

Benefit formula[1]			Benefits as a percentage of taxable wages		
Formula Number	Weekly benefit range	Uniform duration (in weeks)	Pattern I	Pattern II	Pattern III
1	$ 7-20	18	1.13	0.83	0.52
2	7-20	18	1.23	0.93	0.58
3	7-25	18	1.42	1.07	0.66
4	7-25	20	1.48	1.11	0.67
5	10-25	18	1.43	1.07	0.75
6	10-25	20	1.49	1.11	0.69
7	10-25	24	1.59	1.19	0.73
8	10-30	18	1.55	1.17	0.72
9	7-30	20	1.61	1.20	0.75
10	10-30	20	1.61	1.21	0.75

[1] Formula Number 1 represents the current law with the 2-week waiting-period; the other formulas include a waiting-period requirement of only one week.

Periodic Actuarial Valuation

The estimated cost rates in table 54 represent rates of expenditure over each ten-year economic pattern. Benefit outlays may be negligible during favorable years, and considerably higher than the estimated average during a year of declining em-

ployment. Over the course of each assumed pattern, however, the extremes would offset each other.

The estimated rates of expenditure under each benefit formula are based on the assumed economic patterns. A significant change in economic outlook would necessitate a re-examination of costs. Under any circumstances, however, cost factors should be re-examined regularly in the light of added experience and changes in the economic characteristics of the state. Although the estimates contain allowances to safeguard against understatement of costs, they may be exceeded if economic developments take a less favorable course than that depicted in the economic assumptions. Annual, or at least bi-annual, actuarial valuations of the reserves are therefore recommended.

Technical Notes

Note 1: **Derivation of Cost Formula**

The ratio of benefits to taxable wages is equal to the following expression:

$$\frac{\text{average weekly benefit amount}}{\text{average taxable weekly earnings}} \times \frac{\text{average compensable unemployment}}{\text{average covered employment}}$$

This formula was derived in the following manner:

(1) The amount of benefit disbursements for total unemployment over any period is equal to the number of weeks compensated times the average weekly benefit payment.

(2) The amount of aggregate taxable wages is equal to the product of average taxable weekly earnings and the number of man-weeks of covered employment.

(3) Therefore, the ratio of benefits to taxable wages is equal to

$$\frac{\text{average weekly benefit amount}}{\text{average taxable weekly earnings}} \times \frac{\text{weeks compensated}}{\text{man-weeks of covered employment}}$$

(4) The above expression is the same as

$$\frac{\text{average weekly benefit amount}}{\text{average taxable weekly earnings}} \times \frac{\text{weeks compensated}}{\text{man-weeks of covered employment}}$$

(5) If both the numerator and denominator of the fraction on the right-hand side is divided by the number of weeks in the period over which costs are being estimated, the numerical value of the fraction is not changed but it may be expressed as

$$\frac{\text{average compensable unemployment}}{\text{average covered employment}}$$

If the period over which costs are being estimated is one year, for instance, the number of weeks would be 52.

Note 2: **Labor Force Model for Estimating Compensable Unemployment**

Since compensable unemployment is composed of unemployed workers in the compensable duration-of-unemployment interval, the volume of compensable unemployment is dependent not only on the total volume of unemployment but also on the distribution of unemployment by duration in weeks.

Consider a labor force, L, with unemployment equal to U and employment to E. Assuming that unemployment continues at the level U, it follows that the number of accessions and separations for this group is equal. If the accession rate over a 4-week period is denoted by the symbol "a" and the separation rate by "s", then the number of separations over each 4-week period equals the quantity (sE) and the number of accessions (aE), since turnover rates represent proportions of employment.

The probability of an unemployed worker finding a job during a 4-week period denoted by the symbol "h", may be expressed as the ratio of job opportunities or accessions (aE) to job applicants. The number of job applicants over the period is equal to the sum of the number of unemployed and the number of separations, or (U+sE),

$$\text{Therefore, } h = \frac{aE}{U+sE}$$

Since employment and unemployment were assumed to be constant in this hypothetical labor force, the number of accessions and separations must be equal, so that

$$h = \frac{sE}{U+sE}$$

The probability of not being hired during the 4-week period is

$$(1\text{-}h) = 1 - \frac{sE}{U+sE} = \frac{U}{U+sE}$$

For this hypothetical labor force, the probability of an unemployed worker's remaining out of work for the 4-week period is (1-h); for two 4-week periods, $(1\text{-}h)^2$; for three, $(1\text{-}h)^3$; and so forth.

As an illustration, consider a labor force of 100,000 with a constant unemployment rate of 10 percent and separation rate of 4 percent. Since it is assumed that unemployment remains at a constant level, separations and accessions must be in balance. In this hypothetical labor force of 100,000, therefore, 10,000 workers are unemployed and 90,000 are employed. Separations and

accessions over each 4-week period are equal to 4 percent of employment or 3,600. Hence

$$h = \frac{aE}{U+sE} = \frac{sE}{U+sE} = \frac{3,600}{13,600} = 0.2647$$

Similarly, $1\text{-}h = \frac{U}{U+sE} = 0.7353$

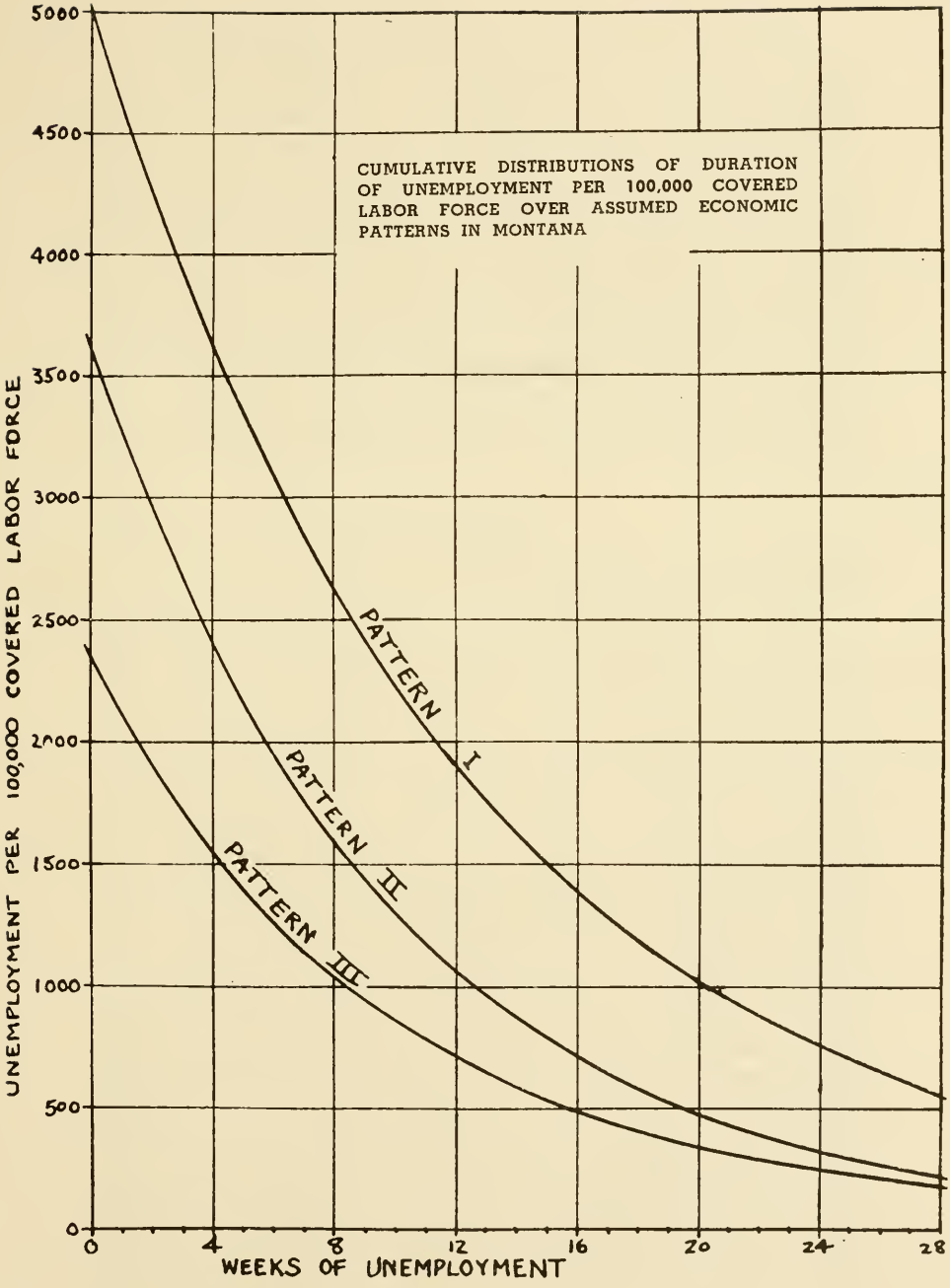
Since U is unemployment at the beginning of each 4-week period and (1-h) represents the probability of not being hired during the 4-week period, the product of U and (1-h) represents the number of workers unemployed at the beginning of the 4-week period who could not find jobs by the end of it; this group represents workers unemployed for 4 or more weeks. Similarly, the product of U and $(1\text{-}h)^2$ represents the number of workers unemployed at a point in time who could not find jobs during the 2 succeeding 4-week periods; these workers would be unemployed for 8 or more weeks. The number of workers unemployed for 12 or more weeks is equal to U times $(1\text{-}h)^3$; the number unemployed for 16 or more weeks to U times $(1\text{-}h)^4$, and so forth. For the assumed unemployment and turnover rates, the distribution of unemployment by duration interval would be as follows:

Duration of Unemployment (in weeks)	Formula	Number of Unemployed
4 or more	$U(1\text{-}h)$	7,353
8 or more	$U(1\text{-}h)^2$	5,407
12 or more	$U(1\text{-}h)^3$	3,976
16 or more	$U(1\text{-}h)^4$	2,924
20 or more	$U(1\text{-}h)^5$	2,150
24 or more	$U(1\text{-}h)^6$	1,581
28 or more	$U(1\text{-}h)^7$	1,163
32 or more	$U(1\text{-}h)^8$	855

Such duration distributions were calculated for each year of the three projected economic patterns on the basis of the covered unemployment rates in table 50 and the separation rates in table 51. The distribution of covered unemployment per 100,000 labor force was averaged over each pattern. Table 55 contains the cumulative duration distribution of covered unemployment per 100,000 labor force in an average week of each projected pattern. The cumulative distributions in table 55 were plotted to form a continuous curve by freehand construction, as shown in the accompanying chart. This curve was used for interpolation in estimating the covered unemployment per 100,000 labor force in duration intervals of one week.

Table 55—Volume of covered unemployment per 100,000 labor force for duration of more than a specified number of weeks in an average week of each economic pattern.

Duration of unemploment in weeks	Covered unemployment per 100,000 labor force		
	Pattern I	Pattern II	Pattern III
0 or more	5,000	3,600	2,340
4 " "	3,614	2,389	1,541
8 " "	2,623	1,591	1,038
12 " "	1,911	1,062	711
16 " "	1,397	712	494
20 " "	1,024	478	347
24 " "	753	322	246
28 " "	555	218	176


CUMULATIVE DISTRIBUTIONS OF DURATION OF UNEMPLOYMENT PER 100,000 COVERED LABOR FORCE OVER ASSUMED ECONOMIC PATTERNS IN MONTANA
UNEMPLOYMENT PER 100,000 COVERED LABOR FORCE
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
PATTERN I
PATTERN II
PATTERN III
0
4
8
12
16
20
24
28
WEEKS OF UNEMPLOYMENT

Section II.-Formulation of Financial Policy

Funds for the payment of unemployment benefits under the Montana Unemployment Compensation Law are derived from a pay roll tax levied on covered employers. Any unexpended portions of the pay roll tax collections during a given year are held in reserve for use to meet benefit outlays during periods when expenditures exceed collections. The basic problem in the formulation of finacial policy is the determination of contribution rates which would yield sufficient revenue for defraying benefit obligations and the maintenance of an adequate reserve. The estimated cost rates developed in Section I of this chapter represent measures of the benefit obligations which the Montana unemployment insurance system should be prepared to finance, and are basic to a valuation of the adequacy of the contribution rates and the reserve level.

Reserves in Unemployment Insurance

The essential element of a self-sustaining system of unemployment insurance is that revenue earmarked for payment of benefits be sufficient to finance benefit obligations. This condition could be fulfilled by varying contribution rates each year so that incoming revenue would be just enough to offset benefit outlays. From the very beginning of the program, however, it was recognized that such a "pay-as-you-go" device would result in substantial tax-rate fluctuations from extremely low levels during favorable years to very high levels during years of declining employment. Employers would be burdened with increased taxation during periods when they could least afford it. Consequently, an attempt was made to avoid the undesirable effects of the "pay-as-you-go" plan. More revenue was taken in during years of favorable employment conditions than was needed for defraying benefit costs. The surplus funds were held in reserve and used to supplement collections during unfavorable years, when the pay roll tax did not yield enough revenue to meet existing benefit obligations. Even under the current experience rating plans in effect throughout the United States, which on the whole tend to reduce tax rates during favorable years and increase them during unfavorable years, the fluctuations in tax rates have been narrower than they would have been if there had been no reserve to offset part of the increased benefit outlays during years of high cost.

Since the introduction of experience rating in Montana on January 1, 1947, the average annual tax rate has remained stable at around 1.8 percent and tax collections during each year have generally exceeded benefit disbursements. Consequently, the problem of rising tax rates under experience rating has not been encountered in this state. The reserve fund has been growing almost continuously and, by the end of 1951, totaled $35.5 million, an amount equivalent to about 13.0 percent of taxable wages.

In order to effect actuarial management in unemployment insurance and to develop a satisfactory policy with respect to the desired level of reserves, a better understanding of the precise function of the reserves is necessary.

It is generally agreed that the unemployment insurance system should be self-sustaining, with income and expenditures balancing out over the long run. Theoretically a reserve fund is needed (1) to safeguard the system against insolvency in the event of a precipitous rise in benefit outlays, and (2) to minimize or eliminate undesirable fluctuations in tax rates from year to year; Montana has been fortunate thus far in not having to experience rising tax rates in periods of declining employment.

In general, there are three different types of taxing provisions which utilize the reserve as a device for curtailing the year-to-year fluctuations in tax rates. Under current state experience-rating plans, tax rates in many states have tended to fluctuate with the rise and fall in unemployment, but the reserve has performed the function of reducing the range of these fluctuations. As an alternative plan, consideration may be given to counter-cyclical variation in average annual tax rates. Such a plan would provide for relatively high tax rates during favorable years and reductions in tax rates during years of high unemployment. Substantial reserves would be accumulated during the years of low unemployment, which would be used during periods of high unemployment to meet the increased benefit outlays and to compensate for the loss of revenue due to taxrate reductions. It has been contended that this method of financing would contribute toward the stabilization of employment by providing tax relief in periods of declining business activity. A third type of tax rate structure involves the maintenance of a level average tax rate from year to year calculated to provide the necessary revenue for safe operations. In order for the system to be self-

sustaining, however, expenditures and income must be in balance over a number of years including periods of both comparatively high and low unemployment, regardless of the manner in which tax rates are permitted to vary from year to year.

Because of our inability to forecast economic developments with accuracy, it is extremely difficult, if at all possible, to devise an experience rating schedule which will provide for counter-cyclical variation in average annual tax rates and, at the same time, a balance between income and expenditures over the business cycle. A financial structure based on the maintenance of a level average annual tax rate, such as Montana has had since the inception of experience ratings, would probably be the simplest device for obtaining both sound actuarial management and at least the partial effects of counter-cyclical financing.

The problem in Montana, therefore, is comparatively simple. It boils down to the question of whether or not the average annual rate of around 1.8 percent which has been in effect during the past 5 years is sufficient, excessive or too low in relation to anticipated costs under the current and expanded benefit formulas. This question is analyzed more fully subsequently in this chapter.

Determination of Contribution Rates

Funds available for the payment of unemployment benefits in any given year are derived from the following three sources: (1) receipts from the tax on covered pay rolls, (2) residue of the unexpended income of previous periods, and (3) interest earned by the assets of the system. In some insurance plans, cash-dividend payments have been used as a device for correcting differences between actual and estimated costs. Self-insured and group plans require periodic adjustment of contribution rates in accordance with periodic valuation of recent operations. In unemployment insurance, where the incidence of the risk is particularly unstable, there is a special need for continued examination of financial operations and adjustment of contribution rates. It is also necessary that an adequate reserve be on hand in order to ensure uninterrupted operations at all times.

After more than 12 years of operation, the unemployment insurance system acquired a background of experience and an accumulation of reserves, which must be taken into account in the determination of tax rates. In this report, the past experience was utilized in the preparation of cost estimates over projected

economic patterns. The estimated cost rates represent a measure of anticipated obligations over the coming years. The contribution rate necessary for maintaining a self-sustaining and actuarially sound system, however, is dependent not only on the estimated costs but also on the policy decision as to what constitutes an adequate reserve.

If the current reserve is considered to be adequate and it is desired that an equivalent reserve fund be available by the end of the period covered by these estimates, for operations over a subsequent period, then the revenue during this period including both pay roll taxes and interest earnings must be equal to benefit outlays. Consequently, the average contribution rate would have to be equal to the estimated cost rate less interest earnings. On the other hand, it may be felt that the current reserve is too small or too large. If it is too small, the average contribution rate over the next cycle would have to be high enough to provide funds not only to meet benefit obligations but also to build up the reserve fund to what would be considered an adequate level. A fund considered too large would permit a correspondingly lower tax rate, with part of the funds currently in reserve being used to finance benefits.

There are no precise criteria for determining a sharp line of demarcation above which the system is overfinanced and below which it is underfinanced. In some cases, it may be simple to decide whether the amount in reserve is too large or too small. An illustration of overfinancing is a state with an estimated long-range cost rate of 1.0 percent of taxable wages but with a reserve equal to 10 or more percent of taxable wages. Such a state could utilize a part of its reserve for financing benefits over the next cycle, even if benefit formulas resulting in somewhat higher costs were enacted. There are also obvious examples of underfinancing, such, for example, as a reserve of less than 4.0 percent of taxable wages in a state with average annual costs equal to 1.5 percent or more, where a reserve of at least 6.0 percent of taxable wages would be considered to be necessary to provide a sufficient safety factor for various contingencies. The calculations would be the same in this instance, except that additional provisions would have to be made for building up the reserve instead of utilizing part of it to finance benefits.

In general, the reserve should be large enough to supplement tax collections in the event that various contingencies oc-

cur, but should not be permitted to grow beyond reasonable bounds. The reserve fund in Montana, which totaled $35.5 million or about 13.0 percent of taxable wages, must be considered in conjunction with the estimated long range casts in the formulation of financial policy.

However, two factors should be given special consideration. First, it is well to keep in mind that even the most unfavorable economic projection on which the cost estimates in this report are based—although quite realistic, is nevertheless moderate and therefore does not contain the degree of safety which the assumption of more severe unemployment would provide. This factor should be recognized and proper allowance for it made in determining reserve requirements. The second factor is the relative adequacy of the benefit formula. Even the costliest benefit formula for which estimates were developed falls short in certain respects from the duration and benefit amounts which are gradually being written into the laws of more and more states. Consequently, considerable care must be exercised in arriving at a decision as to whether or not the size of the present reserves should be deliberately reduced by lowering the tax rate below the indicated costs, and utilizing a portion of the reserves to make up the difference. It may well be desirable to permit the reserve fund to remain at its present level until such time as it is felt that the law is adequate and compares favorably with the laws of other states.

This report therefore makes no specific recommendations on the subject of maintenance or reduction of reserves below their present level. It is felt that a number of basic decisions on the part of the state are necessary before such a decision can be arrived at. The method of treatment of allowance for contingencies and the accompanying illustrations, however, should prove useful to the state in its deliberations on desired financial policy.

The cost estimates developed in the preceding section represent the average annual benefit outlays for each legislative and economic pattern. The required average annual tax rate for financing such benefit outlays may be computed from the following formula:

$$T=(C-I)-\frac{R-Sx_0}{N}$$

T=average annual tax rate

N=number of years in the period over which rates are being averaged

C=average cost rate (benefits as a percent of taxable wages)

R=reserve percentage (reserve as a percent of taxable wages) at the beginning of the period.

I=average annual interest earnings as a percent of taxable wages

Sx_0=sum of allowances for contingencies signified by symbols x_1, x_2, and x_3.

The expression $(R—Sx_0)$ represents the part of the reserve which can be used to supplement tax collections in financing benefits over the period of N years, and $\frac{R—Sx_0}{N}$ is the amount which can be used for this purpose in an average year. However, the value of $(R—Sx_0)$ may be negative, signifying that the annual tax yield computed on the basis of this value will be equal during an average year to the benefit outlays and an additional amount equal in absolute value to $\frac{R—Sx_0}{N}$. The value of $(R—Sx_0)$ will be negative when the sum of allowances for various contingencies, Sx_0, exceeds the amount in reserve at the beginning of the period.

The allowances included in Sx_0 are as follows:

x_1=allowance for error in estimating

x_2=allowances for unforeseen contingencies such as fire, storm, flood or earthquake; and miscellaneous contingencies

x_3=the minimum point to which the reserve should be permitted to decline by the end of the N-year period.

An allowance of about 10 percent per year should be made for errors in estimating. Since each of the three projections covers a period of ten years, the allowance for errors (x_1) would therefore be equal to one average year of benefit outlays, or to C.

The equivalent of one average year of expenditures should also be set aside for the possibility of higher costs due to possible contingencies not otherwise foreseen in the development of economic projections, such as flood, storm, fire or earthquake. Hence, x_2 will be equal to C.

The value of x_3 is dependent to a large extent on administrative judgment and must be based on a large number of considerations. However, it appears that a value of more than 5C is unnecessarily high. Thus, x_3 might be set equal to 5C.

Table 56—Computation of average annual tax rates based on the costliest projection.

Benefit formula			Value of $\frac{R-Sx_0}{N}$ (R=13.0 percent) (percent)	Computed average annual tax rates[1] (percent)
Number	Weekly benefit range	Duration		
1[2]	$ 7-20	18	0.51	0.62
2	7-20	18	0.44	0.79
3	7-25	18	0.31	1.11
4	7-25	20	0.26	1.22
5	10-25	18	0.30	1.13
6	10-25	20	0.26	1.23
7	10-25	24	0.19	1.40
8	10-30	18	0.22	1.33
9	7-30	20	0.18	1.43
10	10-30	20	0.18	1.43

[1] Calculations do not take account of interest earnings.
[2] Represents the current state law with the 2-week waiting-period; all other formulas include a waiting-period of only one week.

Table 56 contains the estimated tax rates based on the assumption that economic development would follow the costliest of the assumed projections (Pattern I), and that the allowances would be as follows: (1) one average year of expenditures for errors in estimating, (2) one average year of expenditures for the occurrences of various contingencies such as flood, fire, or earthquake; and (3) the equivalent of 5 average years of expenditures to be on hand by the end of the 10-year period for operations over a subsequent period. The calculations underlying these estimated tax rates do not include an allowance for interest earned by the reserve funds, on the assumption that the interest earnings would serve as an additional safety factor. It is of course possible, if desired, to take interest earnings into account in calculating the required tax rate. The income from interest earnings should amount to about 0.2 percent of taxable wages per year. These computed tax rates are shown only for illustrative purposes, and are not intended to represent policy recommendations.

Areas of Administrative Decision

This report presents a total of 30 cost rates, representing the estimated rates of expenditures for 10 different legislative and three economic assumptions. Which of these rates, each of which represents the best possible estimate of the average annual cost over the period under consideration, for a **specific** benefit formula, under an **assumed** pattern of economic developments, should be used for policy purposes?

Obviously a number of administrative decisions are necessary. The basic ones are: (1) What benefit formulas of those selected for analysis are to be recommended for legislative enactment? (2) Which one of the three economic patterns should be selected as a basis for policy planning?

It is obvious that benefits will continue to be paid under the benefit provisions now in effect, if the legislature does not act to amend the unemployment compensation law. Hence, it will be necessary to formulate a financial plan based on the current law. However, the Unemployment Compensation Commission may elect to recommend changes in the benefit provisions, in which case it would also be desirable to devise a financial plan for raising revenue to correspond to each recommended set of benefit provisions. This report contains the information necessary for developing average annual tax rates for the various benefit formulas discussed herein. If the Commission's recommendations should include any other formula, similar estimates would have to be developed for it before a financial plan could be formulated. In any event, financial plans should be developed for both the benefit provisions currently in effect and those recommended by the Commission.

The next step is to select the economic pattern which in the opinion of the Commission represents the most desirable basis for financial planning. In view of the comparatively low level of estimated costs, it would probably be desirable to select the pattern which will provide the maximum safety.

Even after the selection of the economic pattern, an additional policy decision must still be made as to the value of the minimum point below which the reserve should not be permitted to decline by the end of the period under consideration (x_3). This point could be set at 4C or 5C depending upon the degree of caution which the Commission may wish to adopt in financial policy planning. Here again in view of the substantial size of the present reserve, and comparatively low estimated costs, a conservative policy may be indicated.

On the basis of three policy decisions—benefit provisions, selection of economic pattern, and determination of minimum point below which the reserve should not be permitted to decline by the end of the period under consideration—an average annual tax rate can be computed by the method described above. The tax rate computed in this manner can be adjusted not only for the reserve fund on hand at the beginning of the period but

also for the anticipated interest earnings. The Commission, however, may consider it desirable to make a fourth policy decision affecting the utilization of interest earnings. On the one hand, these earnings could be utilized in lieu of tax collections, in which case it would merely be necessary to substitute in the formula a value for I representing the interest earnings as a percent of taxable wages. On the other hand, the Commission may decide to retain the interest as an additional margin of safety. The substitutions in the tax rate formula would be the same under the latter alternative, except that no value would be substituted for I.

By following the procedure described above, the Commission will be able to compute average annual tax rates consistent with the estimated long-range cost rates.

Regardless of theoretical considerations, however, account must be taken of the conditions and practices under which the state unemployment insurance system is operating. Even on the basis of the costliest benefit formula and the most unfavorable of the assumed projections, the estimated average annual cost rate is slightly below the currently prevailing average annual tax rate in Montana. In view of the current relationship between tax rates and estimated cost rates, it may be advisable to plan on maintaining the current reserve, and financing benefit outlays entirely out of tax collections. Such a course could be followed by setting the average annual tax rate equal to the estimated average annual cost rate. The reserves would then be available as a safeguard against the occurrence of various contingencies or against the likelihood of an abrupt change in economic conditions which would be accompanied by an increase in long-range costs. Such a course might be considered particularly feasible if operations are continuing under the current benefit provisions, and it is anticipated that there will be revisions in these provisions sometime in the near future.

In summary, the Montana Commssion may wish either to maintain the current reserve at its present level by financing benefits entirely out of future tax collections, or to determine the relationship between the reserve level and costs on the basis of the four administrative decisions discussed above.

Periodic Actuarial Valuation

A study of the underlying cost determinants of unemployment insurance provides a basis for the formulation of financial policy. An actuarial analysis of the Montana system has shown that average annual benefit disbursements under the current law would range, depending upon economic developments, from 0.52 to 1.13 percent of taxable wages. If the basic maximum weekly benefit were $30 with uniform duration of 20 instead of 18 weeks, the cost rate would be 0.75 to 1.61 percent of taxable wages.

Even though the economic assumptions were not intended to be forecasts of future developments, they represent a measure of the range of liability which the unemployment insurance system should be prepared to finance. On the basis of this report, it is possible to relate estimated future liabilities with the current reserve fund and the current level of tax yields. Thereby, we have a basis for arriving at essential administrative decisions.

A financial policy is sound only with regard to the economic outlook and composition of the insured group at the time of the actuarial valuation. There is no assurance that basic changes and future trends will not have a significant effect on unemployment insurance operations. Hence, the system must be checked continually. Actuarial valuations should be made at least every other year, and preferably every year. Such regular valuations will reveal the extent to which the aims of the financial policy are being realized in practice, and provide information for instituting essential modification.